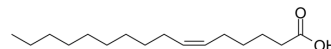


## Sapienic acid

Cat. No.:	HY-130187
CAS No.:	17004-51-2
Molecular Formula:	C <sub>16</sub> H <sub>30</sub> O <sub>2</sub>
Molecular Weight:	254.41
Target:	Bacterial
Pathway:	Anti-infection
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	Sapienic acid is a fatty acid commonly found on the skin and in mucosa. Sapienic acid has variable antimicrobial activities against Gram-positive and Gram-negative bacteria found on the skin and in the oral cavity. Sapienic acid 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 <sup>[1]</sup> .
<b>IC<sub>50</sub> &amp; Target</b>	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> ) <sup>[1]</sup>
<b>In Vitro</b>	Sapienic acid (minimum bactericidal concentrations (MBCs) range, 31.3 to 375.0 µg/mL) is active against <i>Streptococcus sanguinis</i> , <i>Streptococcus mitis</i> , and <i>Fusobacterium nucleatum</i> but not active against <i>Escherichia coli</i> , <i>Staphylococcus aureus</i> , <i>S. marcescens</i> , <i>P. aeruginosa</i> , <i>Corynebacterium bovis</i> , <i>Corynebacterium striatum</i> , and <i>Corynebacterium jeikeium</i> (MBC > 500 µg/mL). Kinetic assays show that killing of <i>S. sanguinis</i> and <i>S. mitis</i> with sapienic acid is gradual and occurred within 24 h <sup>[1]</sup> . 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.**

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