



# SZABO SCANDIC

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### Zuschläge

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### SZABO-SCANDIC HandelsgmbH

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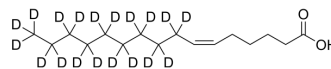
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## Sapienic acid-d<sub>19</sub>

Cat. No.:	HY-130187S
CAS No.:	2692623-89-3
Molecular Formula:	C <sub>16</sub> H <sub>11</sub> D <sub>19</sub> O <sub>2</sub>
Molecular Weight:	273.53
Target:	Bacterial; Isotope-Labeled Compounds
Pathway:	Anti-infection; Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	Sapienic acid-d <sub>19</sub> is a deuterated labeled Sapienic acid <sup>[1]</sup> . 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>[2]</sup> .
<b>In Vitro</b>	<p>Stable heavy isotopes of hydrogen, carbon, and other elements have been incorporated into drug molecules, largely as tracers for quantitation during the drug development process. Deuteration has gained attention because of its potential to affect the pharmacokinetic and metabolic profiles of drugs<sup>[1]</sup>.</p> <p>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 &gt; 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>[2]</sup>.</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>

### 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.

[2]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. *Ann Pharmacother.* 2019 Feb;53(2):211-216.

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

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