

**Product Name:** Ambuic Acid

**Catalog No.:** 6547

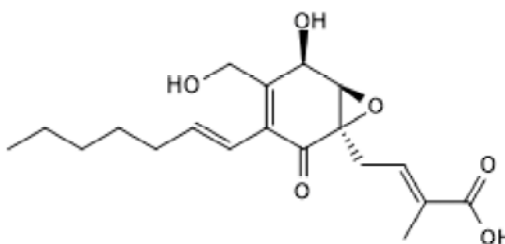
**Batch No.:** 1

CAS Number: 340774-69-8

IUPAC Name: (2E)-4-[(1R,5R,6R)-3-(1E)-1-Hepten-1-yl-5-hydroxy-4-(hydroxymethyl)-2-oxo-7-oxabicyclo[4.1.0]hept-3-en-1-yl]-2-methyl-2-butenoic acid

**1. PHYSICAL AND CHEMICAL PROPERTIES**

**Batch Molecular Formula:** C<sub>19</sub>H<sub>26</sub>O<sub>6</sub>  
**Batch Molecular Weight:** 350.41  
**Physical Appearance:** White solid  
**Solubility:** DMSO to 1 mg/ml  
 ethanol to 1 mg/ml  
**Storage:** Store at -20°C  
**Batch Molecular Structure:**



**2. ANALYTICAL DATA**

**HPLC:** Shows 95.7% purity  
**Mass Spectrum:** Consistent with structure

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**Description:**

Quorum sensing inhibitor. Inhibits auto-inducing peptide (AIP) signal biosynthesis in MRSA ( $IC_{50} = 2.5 \mu M$ ). Reduces MRSA-induced abscess formation in rats. Exhibits activity against pathogenic Gram-positive bacteria but not commensal bacteria.

**Physical and Chemical Properties:**

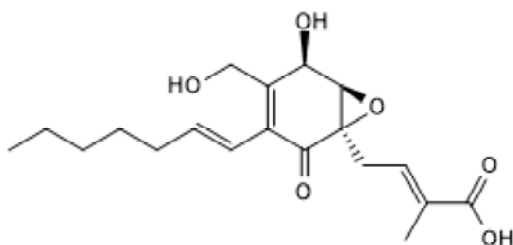
Batch Molecular Formula:  $C_{19}H_{26}O_6$

Batch Molecular Weight: 350.41

Physical Appearance: White solid

**Minimum Purity:** >95%

**Batch Molecular Structure:**



**Storage:** Store at -20°C

**Solubility & Usage Info:**

DMSO to 1 mg/ml  
ethanol to 1 mg/ml

**Stability and Solubility Advice:**

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

**SOLIDS:** Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

**SOLUTIONS:** We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

**References:**

Todd *et al* (2017) Signal biosynthesis inhibition with ambuic acid as a strategy to target antibiotic-resistant infections. *Antimicrob. Agents Chemother.* **61** e00263-17. PMID: 28607020.

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