

# PRODUCT INFORMATION



## Venturicidin A

Item No. 15377

**CAS Registry No.:** 33538-71-5  
**Formal Name:** (1R,5S,6R,8R,9E,11R,15E,17R)-11-[[3-O-(aminocarbonyl)-2,6-dideoxy-β-D-arabino-hexopyranosyl]oxy]-1-hydroxy-5-[[[(1R,3R,4S,5S)-4-hydroxy-1,3,5-trimethyl-6-oxooctyl]-6,8,16,18-tetramethyl-4,21-dioxabicyclo[15.3.1]heneicosa-9,15,18-trien-3-one

**Synonym:** Aabomycin A<sub>1</sub>

**MF:** C<sub>41</sub>H<sub>67</sub>NO<sub>11</sub>

**FW:** 750.0

**Purity:** ≥95%

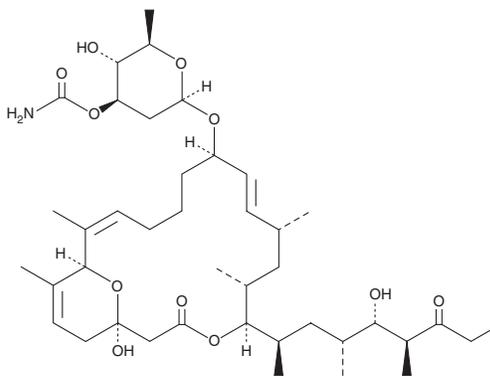
**Supplied as:** A lyophilisate

**Storage:** -20°C

**Stability:** ≥4 years

**Item Origin:** Bacterium/*Streptomyces* sp.

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.



### Laboratory Procedures

Venturicidin A is supplied as a lyophilisate. A stock solution may be made by dissolving the venturicidin A in the solvent of choice, which should be purged with an inert gas. Venturicidin A is soluble in ethanol, methanol, DMSO, and dimethyl formamide.

### Description

Venturicidin A is a macrolide antibiotic isolated from strains of *Streptomyces*.<sup>1</sup> It is active against fungi in the genus *Venturia* which cause apple scab, as well as other fungi, but not against higher plants.<sup>1</sup> Venturicidin A is also cytotoxic against trypanosomes (IC<sub>50</sub> = 120-540 ng/ml) while being more than 25,000 times less effective against mammalian cells.<sup>2</sup> It inhibits bacterial and mitochondrial ATP synthases.<sup>3,4</sup>

### References

1. Rhodes, A., Fantes, K.H., Boothroyd, B., *et al.* Venturicidin: A new antifungal antibiotic of potential use in agriculture. *Nature* **192**, 952-954 (1961).
2. Otaguro, K., Ishiyama, A., Namatame, M., *et al.* Selective and potent *in vitro* antitrypanosomal activities of ten microbial metabolites. *J. Antibiot. (Tokyo)* **61(6)**, 372-378 (2008).
3. Perlin, D.S., Latchney, L.R., and Senior, A.E. Inhibition of *Escherichia coli* H<sup>+</sup>-ATPase by venturicidin, oligomycin and ossamycin. *Biochim. Biophys. Acta* **807(3)**, 238-244 (1985).
4. Matsuno-Yagi, A. and Hatefi, Y. Studies on the mechanism of oxidative phosphorylation. ATP synthesis by submitochondrial particles inhibited at F<sub>0</sub> by venturicidin and organotin compounds. *J. Biol. Chem.* **268(9)**, 6168-6173 (1993).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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#### CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD

ANN ARBOR, MI 48108 · USA

**PHONE:** [800] 364-9897

[734] 971-3335

**FAX:** [734] 971-3640

CUSTSERV@CAYMANCHEM.COM

WWW.CAYMANCHEM.COM