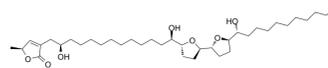


## Asimicin

Cat. No.:	HY-113607
CAS No.:	102989-24-2
Molecular Formula:	C <sub>37</sub> H <sub>66</sub> O <sub>7</sub>
Molecular Weight:	622.92
Target:	Mitochondrial Metabolism; Parasite
Pathway:	Metabolic Enzyme/Protease; Anti-infection
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	Asimicin (Bullatacin) is antitumor acetogenin that can be isolated from the bark and seeds of the pawpaw tree, <i>Asimina triloba</i> Dunal. Asimicin inhibits mitochondrial respiration through the inhibition of complex I. Asimicin shows toxicity to <i>Aphis gossypii</i> , mosquito larvae and mammalian <sup>[1][2][3][4]</sup> .
<b>In Vitro</b>	Asimicin shows inhibitory effects to human cancer cell lines with ED <sub>50</sub> values of 0.00843 and 0.852 µg/mL for A-549 and MCF-7 cells <sup>[2]</sup> . Asimicin shows significant activity towards <i>Caenorhabditis elegans</i> with an IC <sub>100</sub> value of 0.1 µg/mL <sup>[3]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

### REFERENCES

- [1]. Kawamata T, et al. Convergent Total Synthesis of Asimicin via Decarbonylative Radical Dimerization. *Chemistry*. 2018 Dec 17;24(71):18907-18912.
- [2]. Zhao GX, et al. Asimin, asimacin, and asiminecin: novel highly cytotoxic asimicin isomers from *Asimina triloba*. *J Med Chem*. 1994 Jun 24;37(13):1971-6.
- [3]. Ligang Zhou, et al. Secondary Metabolites with Antinematodal Activity from Higher Plants. *Studies in Natural Products Chemistry*. Volume 37, 2012, Pages 67-114.
- [4]. E. David Morgan and Ian D. Wilson. *Insect Hormones and Insect Chemical Ecology*. *Comprehensive Natural Products Chemistry*. Volume 8, 1999, Pages 263-375.

**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