

**Product Name:** Apicidin

**Catalog No.:** 4846

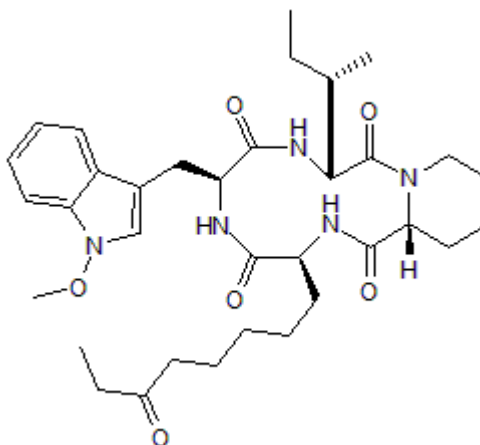
**Batch No.:** 1

**CAS Number:** 183506-66-3

**IUPAC Name:** Cyclo[(2*S*)-2-Amino-8-oxodecanoyl-1-methoxy-L-tryptophyl-L-isoleucyl-(2*R*)-2-piperidinecarbonyl]

### 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>34</sub>H<sub>49</sub>N<sub>5</sub>O<sub>6</sub>  
**Batch Molecular Weight:** 623.78  
**Physical Appearance:** White lyophilised solid  
**Solubility:** DMSO to 2 mM  
 ethanol to 2 mM  
**Storage:** Store at -20°C  
**Batch Molecular Structure:**



### 2. ANALYTICAL DATA

**HPLC:** Shows 99.7% purity  
**Mass Spectrum:** Consistent with structure

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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**Description:**

Potent histone deacetylase (HDAC) inhibitor ( $IC_{50} = 0.7$  nM in an enzyme activity assay). Antiangiogenic and anti-invasive; blocks proliferation of human stomach and breast cancer cells. Induces apoptosis and autophagy in human oral squamous carcinoma cells.

**Physical and Chemical Properties:**

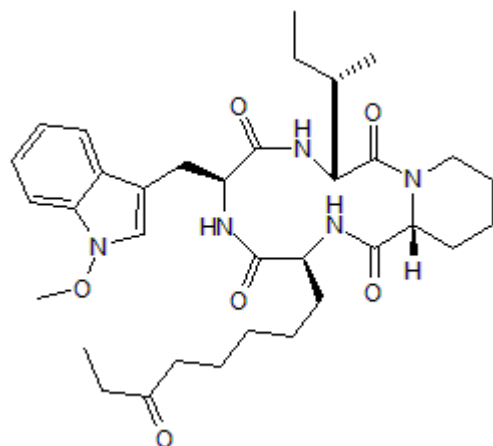
Batch Molecular Formula:  $C_{34}H_{49}N_5O_6$

Batch Molecular Weight: 623.78

Physical Appearance: White lyophilised solid

**Minimum Purity:** >98%

**Batch Molecular Structure:**



**Storage:** Store at -20°C

**Solubility & Usage Info:**

DMSO to 2 mM

ethanol to 2 mM

**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:**

**Darkin-Rattray et al** (1996) Apicidin: a novel antiprotozoal agent that inhibits parasite histone deacetylase. *Proc.Natl.Acad.Sci.* **93** 13143. PMID: 8917558.

**Han et al** (2000) Apicidin, a histone deacetylase inhibitor, inhibits proliferation of tumor cells via induction of p21WAF1/Cip1 and gelsolin. *Cancer Res.* **60** 6068. PMID: 11085529.

**Kim et al** (2004) Apicidin is a histone deacetylase inhibitor with anti-invasive and anti-angiogenic potentials. *Biochem.Biophys.Res.Comm.* **19** 964. PMID: 14985106.

**Ahn et al** (2011) Apicidin, a histone deacetylase inhibitor, induces both apoptosis and autophagy in human oral squamous carcinoma cells. *Oral Oncol.* **47** 1032. PMID: 21856210.

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