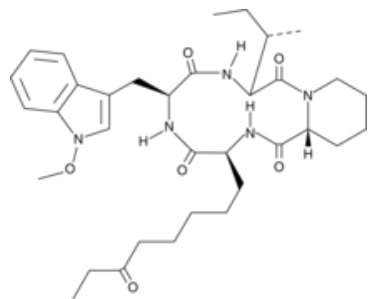



Join us! · [2014 FASEB Science Research Conference - Lipid Droplets & Metabolic Consequences of the Storage of Neutral Lipids](#) · Saxtons River, Vermont · July 13-18, 2014

Apicidin

Cayman Chemical Item Number 10575

OSI 2040 (CAS 183506-66-3)



See more [Histone Deacetylase \(28\)](#)
[Inhibitors \(1196\)](#)
[Cancer \(1154\)](#)
[Cell Biology \(421\)](#)
[Chromatin Research \(236\)](#)
[Epigenetics \(312\)](#)
[Histone Modification \(202\)](#)

Description

Histone acetyltransferase and histone deacetylase (HDAC) activity regulates the reversible acetylation of lysine residues within histone tails, which results in either transcriptional activation or repression of nearby genes. Compounds that modulate this activity are of interest in cancer chemotherapeutics as well as for treating psychiatric disorders, malaria, and other diseases. Apicidin is a fungal toxin that has broad spectrum activity against Apicomplexan parasites through inhibiting HDACs (IC_{50} = 0.7 nM).^{1,2} An *in vitro* activity assay demonstrates apicidin inhibition of HDAC3/NcoR, a class I HDAC, at a much higher potency than for class II HDAC6 (IC_{50} s = 15.8 and 665.1 nM, respectively).^{2,3} Apicidin exhibits antiproliferative activity against various cancer cell lines (IC_{50} s = 0.13-2.36 μ M), and at 0.5 – 2 μ M it induces selective changes in p21WAF1/Cip1 and gelsolin gene expression, which control cell cycle and cell morphology, respectively.^{3,2}

Synonyms	OSI 2040
Formal Name	cyclo[(2S)-2-amino-8-oxodecanoyl-1-methoxy-L-tryptophyl-L-isoleucyl-(2R)-2-piperidinecarbonyl]
CAS Number	183506-66-3
Molecular Formula	C ₃₄ H ₄₉ N ₅ O ₆
Formula Weight	623.8
Formulation	A crystalline solid
Purity	≥98%
λ_{max}	221 nm
Stability	2 years
Storage	-20°C
Shipping	Room temperature in continental US; may vary elsewhere
SMILES	O=C1C([C@@H](C)CC)NC([C@@H](CC2=CN(OC)C3=C2C=CC=C3)NC([C@@H](CCCCC(C)=O)NC([C@@H]4([H])CCCN41)=O)=O)=O

Copy

Size	Global Purchasing
1 mg	See a distributor in your region for pricing
5 mg	See a distributor in your region for pricing
10 mg	See a distributor in your region for pricing

To ask for assistance with one of our products please contact a [Technical Support Scientist](#).

Warning This product is **not** for human or veterinary use.


Related Products

[CAY10398](#)
[CAY10433](#)
[CAY10683](#) NEW

Show all 9

Downloads

- [Download Product Insert](#) 100 Kb PDF
- [Printer-friendly version of this page](#) small PDF (usually less than 100 Kb)
 - [US Letter paper](#) 8½" × 11"
 - [A4 paper](#) 21cm × 29.7cm
- [Chemical structure definitions](#) are available for many Cayman products. See [Chemical Structure Database](#) for details.

Batch-specific Information

Get batch-specific data and documents by batch number

Separate multiple batch numbers with commas

Cayman Chemical Company regularly evaluates our shipping methods to ensure product stability is maintained and our corporate environmental impact is minimized. Products selected for review are evaluated and shipping methods are certified by our Scientists. While occasionally our method of shipping a product may change, rest assured the shipping conditions on all Cayman Chemical products have been reviewed and validated.

Upon receipt, it is important to check the storage requirements of your products and place them at the appropriate temperature. Products shipped without ice may require frozen storage for long term stability.

Cayman Chemical was formed over thirty years ago by demonstrating the value of naturally growing gorgonian corals as a renewable, economically viable source of prostaglandins. Today we operate our business knowing that we owe our start to the renewable resources our environment had provided. As Cayman Chemical continues to grow we consistently evaluate our business processes to ensure we are operating at the highest environmental standards.

InCHI Code 1S/C34H49N5O6/c1-5-22(3)30-34(44)38-19-13-12-18-29(38)33(43)35-26(16-9-7-8-14-24(40)6-2)31(41)36-27(32(42)37-30)20-23-21-39(45-4)28-17-11-10-15-25(23)28/h10-11,15,17,21-22,26-27,29-30H,5-9,12-14,16,18-20H2,1-4H3,(H,35,43)(H,36,41)(H,37,42)/t22-

[Copy](#)

InCHI Key JWOGUUIOCYMBPV-GTMVXCKXSA-N

[Copy](#)

Download free [InCHI Key generation software](#)

Apicidin is available in the following screening library:

[Epigenetics Screening Library \(96-Well\)](#)

OTHER RESOURCES

About Cayman
Management Team
Company Profile
ChemAssistant Tools
FAQs

Cayman Europe
Cayman Pharma
CaBRI
Cayman Gear
Press Releases

Literature and Media
Article Library
Analysis Tools
Conference Schedule

Order Terms
Browser Recommendation
Privacy Statement
Site Map
Conference Travel Grants



Cayman Chemical Company · 1180 East Ellsworth Road · Ann Arbor, Michigan 48108 · USA
Toll Free: (800) 364-9897 (USA and Canada Only) · Fax: (734) 971-3640
Copyright 2014 Cayman Chemical Company

Manufacturer, supplier, and vendor of biochemical reagents, assay kits, forensic chemistry standards, antibodies, and proteins for scientific research · Buy now! Analytical testing services and custom synthesis also available