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## Product Data Sheet

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Product Name: Conophylline

Cat. No.: GC63379

### Chemical Properties

Cas. No. 142741-24-0

Formula  $C_{44}H_{50}N_4O_{10}$  M.Wt 794.89

Solubility Storage Store at  $-20^{\circ}C$

General tips For obtaining a higher solubility, please warm the tube at  $37^{\circ}C$  and shake it in the ultrasonic bath for a while. Stock solution can be stored below  $-20^{\circ}C$  for several months.

Shipping Condition Evaluation sample solution: ship with blue ice All other available size: ship with RT, or blue ice upon request.

Structure

### Background

Conophylline is a vinca alkaloid extracted from leaves of a tropical plant *Ervatamia microphylla*. Conophylline is a differentiation inducer of for pancreatic cells. Conophylline suppresses HSC and induces apoptosis[1][2].

Conophylline (100 ng/ml; 48 hours) reproduces differentiation-inducing activity but not apoptosis-inducing activity of activin[1]. Conophylline (100 ng/ml; 72 hours) exhibits the differentiation-inducing activity in AR42J cells and converts these cells to endocrine cells[1]. Conophylline increases the expression of neurogenin-3 by activating p38 mitogen-activated protein kinase to induce differentiation of AR42J cells[1]. Conophylline reduces the expression of  $\alpha$ -SMA and collagen-1 in rat HSC and Lx-2 cells[2]. Conophylline inhibits DNA synthesis induced by serum[2]. Conophylline also promotes activation of caspase-3 and induces apoptosis in Lx-2 Cells[2].

Conophylline (0.9 mg/kg; p.o.; daily; for 12 weeks) attenuates formation of the liver fibrosis induced by TAA in vivo[2].

[1]. Kojima I, et al. Conophylline: a novel differentiation inducer for pancreatic beta cells. *Int J Biochem Cell Biol.* 2006;38(5-6):923-30.

[2]. Kubo N, et al. Conophylline suppresses hepatic stellate cells and attenuates

**Caution: Product has not been fully validated for medical applications. For research use only.**

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thioacetamide-induced liver fibrosis in rats. Liver Int. 2014 Aug;34(7):1057-67.

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