



Product Information

Product ID C281006

CAS No. 28097-03-2

Chemical Name Chaetocin

Synonym

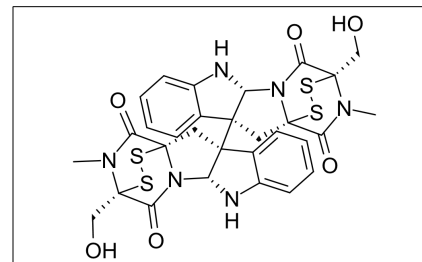
Formula $C_{30}H_{28}N_6O_6S_4$

Formula Wt. 696.83

Melting Point

Purity $\geq 98\%$

Solubility



Pricing and Availability

Bulk quantities available upon request

Product ID	Size	List Price
C281006	1 mg	\$333.90
C281006	5 mg	\$1226.50

Store Temp -20°C

Ship Temp Ambient

Description Chaetocin is naturally produced by Chaetomium species fungi. In human melanoma cells, treatment with chaetocin suppressed proliferation, induced apoptosis, and increased the level of reactive oxygen species. In Epstein-Barr virus cells, it apparently up-regulated lytic transcription and DNA replication via the ROS pathways. In a rat model of chronic heart failure, treatment prolonged survival and restored mitochondrial dysfunction. Using NCI-60 screening found chaetocin to inhibit proliferation in all tested solid tumor cells even more so than multiple myeloma cells. It was also observed to cause a 25-fold induction of latent HIV-1 expression which may be an effective way to purge cells of latent HIV-1.

References Han X, Han Y, Zheng Y, et al. Chaetocin induces apoptosis in human melanoma cells through the generation of reactive oxygen species and the intrinsic mitochondrial pathway, and exerts its anti-tumor activity in vivo. PLoS One. 2017 Apr 18;12(4):e0175950. PMID: 28419143.

Zhang S, Yin J, Zhong J. Chaetocin reactivates the lytic replication of Epstein-Barr virus from latency via reactive oxygen species. Sci China Life Sci. 2017 Jan;60(1):66-71. PMID: 28063010.

Ono T, Kamimura N, Matsushashi T, et al. The histone 3 lysine 9 methyltransferase inhibitor chaetocin improves prognosis in a rat model of high salt diet-induced heart failure. Sci Rep. 2017 Jan 4;7:39752. PMID: 28051130.

Isham CR, Tibodeau JD, Bossou AR, et al. The anticancer effects of chaetocin are independent of programmed cell death and hypoxia, and are associated with inhibition of endothelial cell proliferation. Br J Cancer. 2012 Jan 17;106(2):314-323. PMID: 22187030.

Bernhard W, Barreto K, Saunders A, et al. The Suv39H1 methyltransferase inhibitor chaetocin causes induction of integrated HIV-1 without producing a T cell response. FEBS Lett. 2011 Nov 16;585(22):3549-3554. PMID: 22020221.

Caution: This product is intended for laboratory and research use only. It is not for human or drug use.