LKT Laboratories, Inc.

Chaetocin

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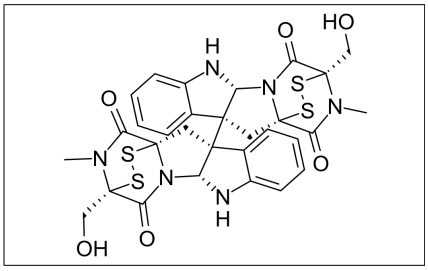
Product Information

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 ≥98%
Solubility



Bulk quanitites available upon request

Product ID	Size
C281006	1 mg
C281006	5 mg

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, chaetocin apparently up-regulated lytic transcription and DNA replication via the ROS pathways. In a rat model of chronic heart failure, chaetocin 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. Chaetocin 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, Matsuhashi 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.

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