

PRODUCT INFORMATION



Chetomin

Item No. 14437

CAS Registry No.: 1403-36-7
Formal Name: 2,3S,5aR,6,10bS,11-hexahydro-3-(hydroxymethyl)-10b-[(1S,4S)-3-[[4-(hydroxymethyl)-5,7-dimethyl-6,8-dioxo-2,3-dithia-5,7-diazabicyclo[2.2.2]oct-1-yl]methyl]-1H-indol-1-yl]-2-methyl-3,11aS-epidithio-11aH-pyrazino[1',2':1,5]pyrrolo[2,3-b]indole-1,4-dione

Synonym: NSC 289491

MF: C₃₁H₃₀N₆O₆S₄

FW: 710.9

Purity: ≥95%

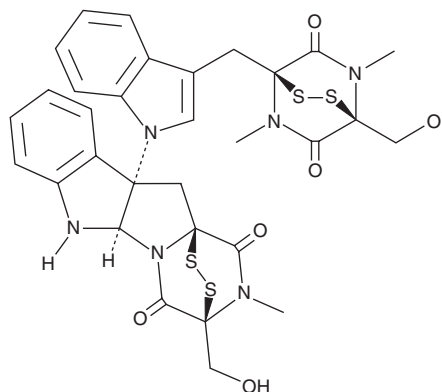
Supplied as: A solid

Storage: -20°C

Stability: ≥4 years

Item Origin: Fungus/*Chaetomium* sp.

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.



Laboratory Procedures

Chetomin is supplied as a solid. A stock solution may be made by dissolving the chetomin in the solvent of choice, which should be purged with an inert gas. Chetomin is soluble in the organic solvent DMSO.

Description

Chetomin is a natural product isolated from *Chaetomium* species which has antibacterial and antifungal properties.¹ It is a small molecule inhibitor of hypoxia-inducible factor (HIF) signaling, disrupting the binding of HIF-1 α and HIF-2 α to p300 at low nanomolar concentrations.² Chetomin effectively attenuates the HIF pathway both in cells and *in vivo*, in mice.² It inhibits HIF-dependant signaling, cell growth, and tumor growth in cancer cells and xenografts.^{2,3}

References

1. Mazumder, P.M. and Sasmal, D. Mycotoxins - limits and regulations. *Anc. Sci. Life* **20**(3), 1-19 (2001).
2. Kung, A.L., Zabudoff, S.D., France, D.S., *et al.* Small molecule blockade of transcriptional coactivation of the hypoxia-inducible factor pathway. *Cancer Cell* **6**, 33-43 (2004).
3. Kessler, J., Hahnel, A., Wichmann, H., *et al.* HIF-1 α inhibition by siRNA or chetomin in human malignant glioma cells: Effects on hypoxic radioresistance and monitoring via CA9 expression. *BMC Cancer* **10**(605), (2010).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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