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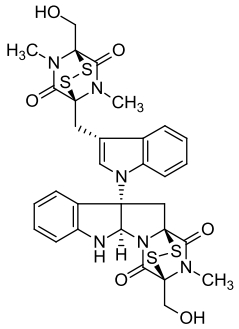
PRODUCT DATA SHEET

Chaetomin

Code No.: **BIA-C1719**

Pack sizes: **0.5 mg, 2.5 mg**



Synonyms : Chetomin

Specifications

CAS #	:	**1403-36-7**
Molecular Formula	:	**$C_{31}H_{30}N_6O_6S_4$**
Molecular Weight	:	**710.9**
Source	:	***Chaetomium* sp.**
Appearance	:	**Pink-beige solid**
Purity	:	**>95% by HPLC**
Long Term Storage	:	**-20°C**
Solubility	:	**Soluble in ethanol, methanol, DMF or DMSO.**

Application Notes

Chaetomin is an epidithiodioxopiperazine metabolite first isolated from Chaetomium cochliodes by Waksman and Bugie in 1944 as an antibiotic. Its structure was resolved in the 1970s comprising a non-symmetric bis-epidithiodioxopiperazine with both hemispheres having a core N,N'-dimethyldiketopiperazine linked by a bisulfide bridge. Chaetomin is an important chemo-taxonomic standard for characterising the genus Chaetomium. Chaetomin is a potent antitumor agent, inhibiting hypoxia-inducible transcription. Chaetomin is used extensively as a molecular reagent and is the subject of over 150 citations in Scifinder.

References

1. Chetomin, a new antibiotic substance produced by Chaetomium cochliodes. I. Formation and properties. Waksman S.A. and Bugie E., J. Bact. 1944, 48, 527.
2. Sporidesmins. XIII. Ovine ill-thrift in Nova Scotia. III. Characterization of chetomin, a toxic metabolite of Chaetomium cochliodes and Chaetomium globosum. Safe S. and Taylor A., Perkin Trans. 1: Org. Bioorg. Chem. 1972, 4, 472.
3. Mycotoxin production by Chaetomium spp. and related fungi. Sekita S. et al., Can. J. Microbiol. 1981, 27, 766.
4. Small molecule blockade of transcriptional coactivation of the hypoxia-inducible factor pathway. Kung A.L. et al., Canc. Cell 2004, 6, 33.

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