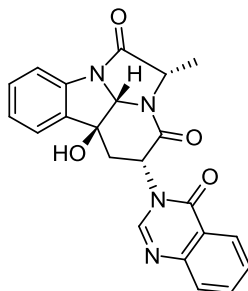


Chaetominine

Code No.: **BIA-C1718**

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



Synonyms :

Specifications

CAS #	: 918659-56-0
Molecular Formula	: C₂₂H₁₈N₄O₄
Molecular Weight	: 402.4
Source	: <i>Aspergillus</i> sp.
Appearance	: Colourless residue
Purity	: >95% by HPLC
Long Term Storage	: -20°C
Solubility	: Soluble in ethanol, methanol, DMF or DMSO.

Application Notes

Chaetominine is an unusual heterocyclic fungal metabolite isolated as a potent anti-tumor agent from an unspciated endophytic strain of *Chaetomium* by researchers at Nanjing University, China in 2006. Interest in the structure of chaetominine has given rise to five independent total syntheses. Chaetominine's origin as a plant endophyte has highlighted its role as an allelochemical providing direct advantage to its host by suppressing germination and growth of competing plant species. Lack of availability has hampered further research of its pharmacology.

References

1. Chaetominine, a cytotoxic alkaloid produced by endophytic *Chaetomium* sp. IFB-E015. Jiao R.H. et al., *Org. Lett.* 2006, 8, 5709.
2. Secondary metabolites from *Aspergillus fumigatus*, an endophytic fungus from the liverwort *Heteroscyphus tener* (Steph.) Schiffn. Xie F. et al., *Chem. Biodivers.* 2015, 12, 1313.
3. The four-step total synthesis of (-)-chaetominine. Peng Q-L. et al., *Chem. Commun.* 2014, 50, 1986.
4. Complexity generation by chemical synthesis: a five-step synthesis of (-)-chaetominine from L-tryptophan and its biosynthetic implications. Xu C-P. et al., *Org. Biomol. Chem.* 2014, 12, 2859.
5. Chaetominine, (+)-alantrypinone, questin, isorhodoptilometrin, and 4-hydroxybenzaldehyde produced by the endophytic fungus *Aspergillus* sp. YL-6 inhibit wheat (*Triticum aestivum*) and radish (*Raphanus sativus*) germination. Gui R-Y. et al., *J. Plant Interact.* 2015, 10, 87.