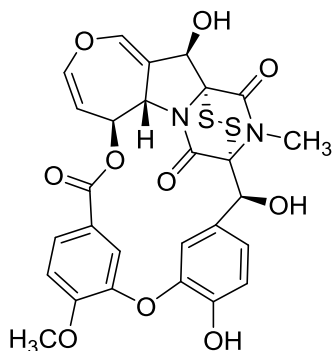


Emestrin

Code No.: **BIA-E1845**

Pack sizes: **1 mg, 5 mg**



Synonyms : Emestrine, Mycotoxin EQ-1

Specifications

CAS #	: 97816-62-1
Molecular Formula	: C ₂₇ H ₂₂ N ₂ O ₁₀ S ₂
Molecular Weight	: 598.6
Source	: <i>Aspergillus</i> sp.
Appearance	: White solid
Purity	: >95% by HPLC
Long Term Storage	: -20°C
Solubility	: Soluble in ethanol, methanol, DMF or DMSO.

Application Notes

Emestrin is a macrocyclic mycotoxin first isolated from *Emericella striata* by researchers at Hoshi University, Japan in 1985. Emestrin possesses a unique epidithiodioxopiperazine ring as part of a larger heterologous macrocycle. Emestrin inhibits mitochondrial ATP synthesis via uncoupling of oxidative phosphorylation and depression of mitochondrial respiration. Emestrin is a potent antagonist of the chemokine CCR2 receptor, via inhibition of MCP-1 binding, specifically mediating monocyte chemotaxis.

References

1. Structure and absolute configuration of emestrin, a new macrocyclic epidithiodioxopiperazine from *Emericella striata*. Hideyuki S. et al., J.Chem. Soc. 1985, 10, 657.
2. Toxicity of emestrin, a new macrocyclic dithiodioxopiperazine mycotoxin, to mitochondrial function. Kawai K. et al., Mycotox. Res. 1989, 5, 2.
3. Isolation and structures of novel fungal metabolites as chemokine receptor (CCR2) antagonists. Herath K.B. et al., J. Antibiot. 2005, 58, 686.