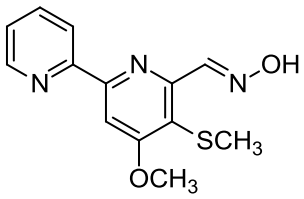
bioaustralis
fine chemicals

PRODUCT DATA SHEET

Collismycin

Code No.: **BIA-C1624**

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



Synonyms : SF 2738A

Specifications

CAS #	:	**158792-24-6**
Molecular Formula	:	**$C_{13}H_{13}N_3O_2S$**
Molecular Weight	:	**275.3**
Source	:	***Streptomyces* sp.**
Appearance	:	**White to off white solid**
Purity	:	**>95% by HPLC**
Long Term Storage	:	**-20°C**
Solubility	:	**Soluble in ethanol, methanol, DMF or DMSO.**

Application Notes

Collismycin is a rare and unusual antibiotic belonging to the caerulomycin class, containing a core 2,2'-bispyridyl with an oxime substituent, produced by a strain of Streptomyces and discovered by researchers from Kirin, Japan in 1994. Collismycin was discovered as a potent inhibitor of glucocorticoid receptor binding. Collismycin has weak to moderate activity against bacteria, fungi and tumor cell lines. More recently, collismycin has been found to be a potent and selective neuroprotective agent against oxidative stress. Other recent publications have focused on the biosynthesis of collismycin as a route to the production of related analogues.

References

1. Caerulomycin, a new antibiotic from Streptomyces caeruleus Baldacci: I. Production, isolation, assay and biological properties. Funk A. & Divekar P.V. Can. J. Microbiol. 1959, 5, 317.
2. Collismycin A and B, novel non-steriodal inhibitors of dexamethasone glucocorticoid receptor binding. Shindo K. et al., J. Antibiot. 1994, 47, 1072.
3. Engineering the biosynthesis of the polyketide-nonribosomal peptide collismycin A for generation of analogs with neuroprotective activity. Garcia I. et al., Chem Biol. 2013, 20, 1022.
4. Collismycin A biosynthesis in Streptomyces sp. CS40 is regulated by iron levels through two pathway-specific regulators. Vior N.M. et al., Microbiology 2014, 160, 467.

Updated: 24 May 2019

Building C, 28-54 Percival Road, Smithfield, NSW 2164, AUSTRALIA

Tel: 61 2 9757 4515 Fax: 61 2 9757 2586 Web: www.bioaustralis.com Email: info@bioaustralis.com