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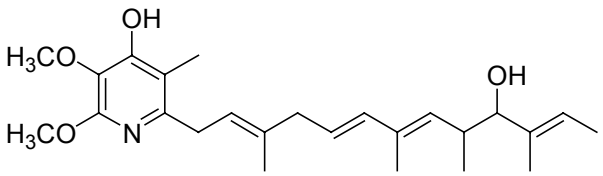
PRODUCT DATA SHEET

Piericidin A

Code: **BIA-P1069**

Pack sizes: **2.0 mg, 10 mg**



Synonyms : **Shaoguanmycin B, Antibiotic MT 1882-I, Antibiotic SN 198E, Antibiotic IT 143D, Piericidin A1**

Specifications

CAS #	:	**2738-64-9**
Molecular Formula	:	**$C_{25}H_{37}NO_4$**
Molecular Weight	:	**415.6**
Source	:	***Streptomyces* sp. MST-AS5364**
Appearance	:	**Pale yellow oil**
Purity	:	**> 95% by HPLC**
Long Term Storage	:	**–20°C**
Solubility	:	**Soluble in ethanol, methanol, DMF or DMSO**.

Application Notes

Piericidin A is the major analogue of a family of pyridyl antibiotics isolated from selected *Streptomyces* sp. It is a specific, potent inhibitor of NADH-ubiquinone oxidoreductase (Complex I) that binds to ubiquinone binding site(s). Piericidin A inhibits both mitochondrial and bacterial NADH-ubiquinone oxidoreductases, binding close to NUOD-NUOB interface.

References

1. Evidence for a quinone binding site close to the interface between NUOD and NUOB subunits of Complex I. Prieur I. et al. *Biochim. Biophys. Acta* **2001**, 1504, 173.
2. -->H+/2e- stoichiometry in NADH-quinone reductase reactions catalyzed by bovine heart submitochondrial particles. Galkin A.S. et al. *FEBS Lett.* **1999**, 451, 157.
3. The 49-kDa subunit of NADH-ubiquinone oxidoreductase (Complex I) is involved in the binding of piericidin and rotenone, two quinone-related inhibitors. Darrouzet E. et al. *FEBS Lett.* **1998**, 10, 34.
4. Two binding sites of inhibitors in NADH: ubiquinone oxidoreductase (complex I). Relationship of one site with the ubiquinone-binding site of bacterial glucose:ubiquinone oxidoreductase. Friedrich T. et al. *Eur J Biochem*. **1994**, 219, 691.

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