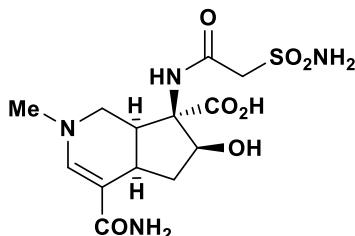


PRODUCT DATA SHEET

Date: May 7, 2020

Altemicidin



Synonyms:

Specifications

Code No.	: 12151
CAS#	: 125399-82-8
Molecular Formula	: C ₁₃ H ₂₀ N ₄ O ₇ S
Molecular Weight	: 376.384
Source	: <i>Streptomyces</i> sp. MI944-61F6
Appearance	: White powder
Purity	: > 90% (HPLC)
Long Term Storage	: at - 20 °C
Solubility	: Soluble in H ₂ O. Poorly soluble in MeOH. Insoluble in acetone, hexane.

Application Notes

Altemicidin is a natural product obtained from *Streptomyces sioyaensis*, SA-17588.^{1,2)} Altemicidin showed antitumor activity. It inhibited the growth of L1210 tumor cell (IC₅₀: 0.84 µg/mL) and IMC carcinoma cell (IC₅₀: 0.82 µg/mL).¹⁾ It also showed inhibitory activity against *Xanthomonas oryzae* (MIC: 6.25 µg/mL).¹⁾ Its LC₅₀ value against brine shrimp was 3.0 µg/mL.¹⁾ Altemicidin has activity against the two spotted spider mite on kidney bean leaves and the 50% prevention value is about 10 ppm.¹⁾ Altemicidin analogues have been found from *streptomyces* as isoleucyl tRNA synthetase inhibitor.³⁾

References

- 1) Altemicidin, a new acaricidal and antitumor substance. I. Taxonomy, fermentation, isolation and physico-chemical and biological properties. Takahashi A, *et al. J Antibiot.* 1989 **42**(11) 1556-1561.
- 2) Altemicidin, a new acaricidal and antitumor substance. II. Structure determination. Takahashi A, *et al. J Antibiot.* 1989 **42**(11) 1562-1566.
- 3) SB-203207 and SB-203208, Two novel isoleucyl tRNA synthetase inhibitors from a *streptomyces* sp. I. Fermentation, isolation and properties. Stefanska A.L., *et al. J Antibiot.* 2000 **53**(4) 357-363.