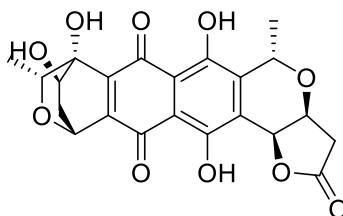


Granaticin A

Code No.: **BIA-G2979**

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



Synonyms : Granatomycin C, Litmomycin, N 9940A, WR 141, Antibiotic N 9940A, Antibiotic WR 141

Specifications

CAS #	: 19879-06-2
Molecular Formula	: C ₂₂ H ₂₀ O ₁₀
Molecular Weight	: 444.4
Source	: <i>Streptomyces</i> sp.
Appearance	: Red solid
Purity	: >95% by HPLC
Long Term Storage	: -20°C
Solubility	: Soluble in ethanol, methanol, DMF or DMSO.

Application Notes

Granaticin A is a red benzoisochromanequinone pigment with antibiotic properties produced by *Streptomyces vietnamensis*. Granaticin is cytotoxic (ED₅₀ 3.2 µ/mL against human oral epidermoid carcinoma (KB) cells, inhibiting the maturation of ribosomal RNA. More recently, granaticin A's putative mode of action was identified as the oxidation of sulfhydryl groups of bacterial cellular components leading to cell death from H₂O₂ generated during the oxidation reaction.

References

1. Products of metabolism of actinomycetes. IX. Granaticin. Corbaz R. et al. Helvetica Chimica Acta 1957, 40, 1262.
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4. Heinsteins P. J Pharm Sci. 1982, 71, 197.
5. Organocatalytic activity of granaticin and its involvement in bactericidal function. Nishiyama T. et al. Sci Rep. 2022, 12, 7046.