



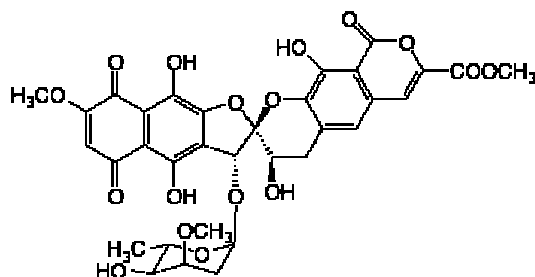
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## PRODUCT DATA SHEET

### Heliquinomycin

(inhibitor for DNA helicase )

Produced by *Streptomyces* sp. MJ929-SF2



Synonyms: Rubymycin

Cat. No.: 10665 Lot.001

Size: 1mg

### Identification of the substance

CAS# : 178182-49-5

Molecular Formula : C<sub>33</sub>H<sub>30</sub>O<sub>17</sub>

Molecular Weight : 698.5811

Source : *Streptomyces* sp. MJ929-SF2

Appearance : Red powder

Purity : >80% by HPLC (254nm)

Long Term Storage : 4°C

Solubility : Soluble in DMSO, EtOH, CHCl<sub>3</sub>, EtOAc  
Insoluble in H<sub>2</sub>O, n-hexane

### Product description

Heliquinomycin inhibits DNA helicase from HeLa cell in a non-competitive manner with the inhibition constant (K<sub>i</sub>) of 6.8 mM. The topoisomerase II and I enzymes are inhibited at 30 μg/ml and 100 μg/ml of heliquinomycin, respectively. Heliquinomycin inhibits the growth of HeLa S3, KB, LS180, K562 and HL60 human tumor cell lines at IC<sub>50</sub> values of 0.96 to 2.8 μg/ml. Heliquinomycin inhibits both DNA and RNA synthesis in cell culture but does not inhibit protein synthesis. HeLa S3 cells are arrested at the G<sub>2</sub>/M phase by heliquinomycin.

This product is licenced under JP patent NO.3490154

### Referances

1. Heliquinomycin, a new inhibitor of DNA helicase, produced by *Streptomyces* sp. MJ929-SF2 I. Taxonomy, production, isolation, physico-chemical properties and biological activities. M. Chino; K. Nishikawa; M. Umekita; C. Hayashi; T. Yamazaki; T. Tsuchida; T. Sawa; M. Hamada; T. Takeuchi, *J. Antibiotics* 1996,49, 752-757
2. Heliquinomycin, a new inhibitor of DNA helicase, produced by *Streptomyces* sp. MJ929-SF2 II. Structure determination of heliquinomycin. M. Chino; K. Nishikawa; T. Tsuchida; R. Sawa; H. Nakamura; K. S. Nakamura; Y. Muraoka; D. Ikeda; H. Naganawa; T. Sawa; T. Takeuchi, *J. Antibiotics*, 1997, 50, 143-146
3. Heliquinomycin, a new inhibitor of DNA helicase, produced by *Streptomyces* sp. MJ929-SF2. III. Biosynthesis. M. Chino; K. Nishikawa; R. Sawa; M. Hamada; H. Naganawa; T. Sawa; T. Takeuchi, *J. Antibiotics*,781-784
4. Effect of a novel antibiotic, heliquinomycin, on DNA helicase and cell growth. M. Chino; K. Nishikawa; A. Yamada; M. Ohsono; T. Sawa; F. Hanaoka; M. Ishizuka; T. Takeuchi, *J. Antibiotics*, 1998, 51, 480-486