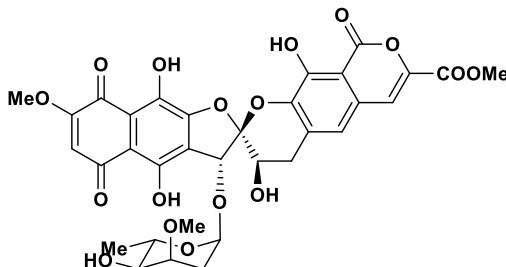


PRODUCT DATA SHEET

Date: May 7, 2021

Heliquinomycin (Inhibitor for DNA helicase)



Synonyms:

Specifications

Code No.	: 10665
CAS#	: 178182-49-5
Molecular Formula	: C ₃₃ H ₃₀ O ₁₇
Molecular Weight	: 698.586
Source	: <i>Streptomyces</i> sp. MJ929-SF2
Appearance	: Red powder
Purity	: > 80% (HPLC)
Long Term Storage	: at 4 °C
Solubility	: Soluble in EtOAc, EtOH, DMSO Insoluble in H ₂ O, Hexane

Application Notes

Heliquinomycin inhibits DNA helicase from HeLa cell in a non-competitive manner with the inhibition constant (K_i) 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 IC₅₀ 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 G2/M phase by heliquinomycin.

References

- 1) Heliquinomycin, a new inhibitor of DNA helicase, produced by *Streptomyces* sp. MJ929-SF2 I. Taxonomy, production, isolation, physicochemical properties and biological activities. Chino M, *et al. J Antibiot.* 1996 **49**(8) 752-757
- 2) Heliquinomycin, a new inhibitor of DNA helicase, produced by *Streptomyces* sp. MJ929-SF2 II. Structure determination of heliquinomycin. Chino M, *et al. J Antibiot.* 1997 **50**(2) 143-146
- 3) Heliquinomycin, a new inhibitor of DNA helicase, produced by *Streptomyces* sp. MJ929-SF2. III. Biosynthesis. Chino M, *et al. J Antibiot.* 1997 **50**(9) 781-784
- 4) Effect of a novel antibiotic, heliquinomycin, on DNA helicase and cell growth. Chino M, *et al. J Antibiot.* 1998 **51**(5) 480-486