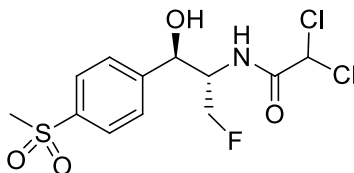


Florfenicol

Code No.: **BIA-F1487**

Pack sizes: **25 mg, 100 mg**



Synonyms : (-)Florfenicol, Sch 25298

Specifications

CAS #	: 73231-34-2
Molecular Formula	: C₁₂H₁₄Cl₂FNO₄S
Molecular Weight	: 358.2
Source	: Synthetic
Appearance	: White solid
Purity	: >95% by HPLC
Long Term Storage	: -20°C
Solubility	: Soluble in ethanol, methanol, DMF or DMSO. Poor water solubility.

Application Notes

Florfenicol is synthesised from thiamphenicol by replacing the 3-hydroxy group with fluorine, first synthesised at Schering in 1980. By replacing the hydroxy group, it was rationalised that chloramphenicol resistance via chloramphenicol acetyltransferase could be eliminated. Florfenicol is a broad spectrum antibiotic with good activity against Gram negative and anaerobic bacteria. Florfenicol acts by binding to the 23S sub-unit of the 50S ribosome, inhibiting protein synthesis. Florfenicol has been extensively studied with over 400 literature citations.

References

1. An efficient synthesis of florfenicol. Schumacher D.P. et al., J. Org. Chem. 1990, 55, 5291.
2. An improved industrial synthesis of florfenicol plus an enantioselective total synthesis of thiamphenicol and florfenicol Wu G. et al., J. Org. Chem. 1997, 62, 2996.
3. In vitro activity of chloramphenicol and thiamphenicol analogs. Neu H.C. & Fu K.P. Antimicrob. Agents Chemother. 1980, 18, 311.