

Product Name: Dalfopristin Mesylate

Product Number: D034

CAS Number: 112362-50-2

Molecular Formula: $C_{35}H_{54}N_4O_{12}S_2$

Molecular Weight: 787.0

Appearance: White to yellow solid

Storage Conditions: -20°C

Description: Dalfopristin is a semi-synthetic analogue of ostreogrycin A (virginiamycin M, pristinamycin IIA, streptogramin A) formed by addition of diethylaminoethylthiol to the 2-pyrroline group of ostreogrycin, followed by oxidation to the sulfone. The structural changes provide a more hydrophobic compound with a readily ionisable group for generating a salt. Dalfopristin is used commercially in synergistic combination with quinupristin (70:30). There is little published data on the synthesis, biological or antibiotic activity of dalfopristin alone, however the combination product is highly effective, including activity against antibiotic resistant strains.

Dalfopristin is soluble in ethanol, methanol, DMF and DMSO.

References: Quinupristin/dalfopristin (RP 59500): A new streptogramin antibiotic. Chant C. et al. Ann. Pharm. 1995, 29,1022.

Quinupristin/dalfopristin: spectrum of activity, pharmacokinetics, and initial chemical experience. Low D. Microb. Drug Resist. 1995, 1, 223.

Quinupristin/dalfopristin: a therapeutic review. Allington D.R. & Rivey M.P. Clin. Ther. 2001, 23, 24.