PRODUCT INFORMATION

Clindamycin
Item No. 15006

CAS Registry No.: 18323-44-9
Formal Name: methyl 7-chloro-6,7,8-trideoxy-6-[[[(2S,4R)-1-methyl-4-propyl-2-pyrrolidinyl]carbonyl]amino]-1-thio-L-threo-α-D-galacto-octopyranoside
Synonym: U-21251
MF: C18H33ClN2O5S
FW: 425.0
Purity: ≥95%
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Clindamycin is supplied as a crystalline solid. A stock solution may be made by dissolving the clindamycin in the solvent of choice, which should be purged with an inert gas. Clindamycin is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of clindamycin in ethanol and DMSO is approximately 20 mg/ml and approximately 30 mg/ml in DMF.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of clindamycin can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of clindamycin in PBS (pH 7.2) is approximately 0.2 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Clindamycin is a lincosamide antibiotic.1,2 It is active against Gram-positive bacteria, including various strains of S. pneumoniae, S. viridans, S. aureus, and S. epidermidis (MICs = 0.002-0.1, 0.005-0.2, 0.04-1.6, and 0.1-0.2 µg/ml, respectively).1 Clindamycin is also active against chloroquine-resistant and -sensitive strains of P. falciparum (IC50s = 3.12 and 8.81 nM, respectively).2 It inhibits bacterial protein synthesis by interacting with the 50S ribosome.2 Clindamycin increases survival in a mouse model of a secondary S. pneumoniae infection when administered at a dose of 15 mg/kg twice daily for seven days.3 Formulations containing clindamycin have been used in the treatment of bacterial infections.

References