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: C_{18}H_{33}ClN_{2}O_{5}S
FW: 425.0
Purity: ≥95%
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥2 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. Clindamycin is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. 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 an antibiotic in the lincosamide class which binds the bacterial 50S ribosomal subunit and interferes with protein synthesis.\textsuperscript{1,2} Evidence suggests that clindamycin is particularly effective against anaerobes and is commonly used against Gram positive bacteria.\textsuperscript{1-3} It is used for serious infections and in the prevention of emerging infections in burns.\textsuperscript{3-6} Clindamycin is also effective against \textit{P. falciparum} and is used as an antimalarial, either alone or in combination therapy.\textsuperscript{7}

References