Clindamycin
PRODUCT DATA SHEET

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Product Name:	Clindamycin
Product Number:	C233
CAS Number:	18323-44-9
Molecular Formula:	$C_{18}H_{33}ClN_2O_5S$
Molecular Weight:	425.0
Appearance:	white solid
Solubility:	Soluble in ethanol, methanol, DMF or DMSO. Good water solubility.
Source:	semi-synthetic
Storage Conditions:	-20°C
Description:	Clindamycin is a broad-spectrum antibiotic and antiparasitic agent. It is a semi-synthetic derivative of Lincomycin, a natural lincosamide from *Streptomyces lincolnensis*. It is obtained by chloride substitution of the exocyclic sugar hydroxy group for improved pharmacodynamics, and was first announced in 1966. Clindamycin is freely soluble in water.
Mechanism of Action:	Clindamycin has a bacteriostatic effect, acts by reversible binding to the 50S rRNA of the large bacterial ribosome subunit, preventing ribosomal translocation and thus protein synthesis.
Spectrum:	Clindamycin has broad-spectrum activity against Gram-positive and Gram-negative anaerobic bacteria, in addition to protozoa.
References:	Dhawan VK and Thadepalli H. (1982) Clindamycin: A review of fifteen years of experience. Clin. Infect. Dis. 4(6):1133-1153 PMID 6818656 Li LH, Kuentzel K L, Shugars KD and Bhuyan BK (1977) Cytotoxicity of several marketed antibiotics on mammalian cells in culture. J. Antibiot (Tokyo) 30(6):506-512 PMID 560364 Lovmar, M and Tanel T (2003) The Mechanism of action of macrolides, lincosamides and streptogramin B reveals the nascent peptide exit path in the ribosome. *J. Molec. Microbiol.* 330(5): 1005-014 PMID 12860123 Magerlein BJ et al (1966) Chemical modification of lincomycin. Antimicrob Agents Chemother. 6:727 PMID 5985307 Wijsman JA, Dekaban GA and Rieder MJ (2013) Differential toxicity of reactive metabolites of clindamycin and sulfonamides in HIV-infected cells: Influence of HIV infection on clindamycin toxicity *in vitro*. J. Clin. Pharmacol. 45(3):346-351 PMID 15703369