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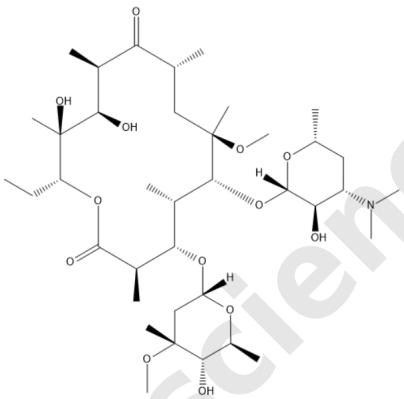
Data Sheet

Product Information

Catalog Number	BP12840
Product Name	Clarithromycin
Description	Clarithromycin is a Macrolide Antimicrobial. The mechanism of action of clarithromycin is as a Cytochrome P450 3A4 Inhibitor, and Cytochrome P450 3A Inhibitor, and P-Glycoprotein Inhibitor. The chemical classification of clarithromycin is Macrolides.
In vitro	Clarithromycin suppresses this production in a dose-dependent manner in both monocytes and THP-1 cells. Clarithromycin regulates three other promoters that have either the NF-kappa B or the AP-1 binding sequences: two synthetic (pAP-1-Luc and pNF-kappa B-Luc) and one naturally occurring (ELAM-Luc). Clarithromycin suppresses NF-kappaB activation induced by TNF-alpha in U-937 and Jurkat cells in a concentration-related manner. Clarithromycin inhibits NF-kappaB activation induced by TNF-alpha in U-937, Jurkat, and A549 cells and PBMC and by SEA in PBMC. Clarithromycin prevents NF-kappaB-dependent reporter gene expression in U-937 cells. Clarithromycin results in a significant suppression of production of each cytokine in 71% and a significant increase in 29% of the human monocytes. Clarithromycin inhibits tumor necrosis factor (TNF)-alpha-induced IL-8 gene expression in a dose- and incubation time-dependent manner. Clarithromycin represses AP-1 binding in TNF-alpha-treated BET-1A cells. Clarithromycin represses IL-8 gene transcription mainly via the AP-1 binding site in human bronchial epithelial cells. Clarithromycin suppresses IL-1 beta gene expression in human nasal epithelial cells stimulated by H. influenzae endotoxin (HIE). Clarithromycin suppresses intercellular adhesion molecule-1 gene expression in nasal fibroblasts stimulated by IL-1 beta. Clarithromycin reduces DNA-binding activity of NF-kappa B in both human nasal epithelial cells and fibroblasts stimulated by HIE or IL-1 beta, respectively.
Synonyms	A-56268

CAS No.	81103-11-9
Chemical Formula	C38H69NO13
Molecular Weight	747.95
Solubility	DMSO: 33.4 mM
Storage	Powder: -20°C for 2 years In solvent: -80°C for 1 year
Chemical Structure OR Tested Image	

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