Product Name: Erythromycin Estolate

Product Number: E003

CAS Number: 3521-62-8

Molecular Formula: C$_{40}$H$_{71}$NO$_{14}$ · C$_{12}$H$_{26}$SO$_{4}$

Molecular Weight: 1056.39 g/mol

Form: Powder

Appearance: White crystalline powder

Solubility: Freely soluble in organic solvents (ethanol, acetone, chloroform, polyethylene glycol, and benzene). It is insoluble in water.

Source: Actinomycete saccha

Water Content (Karl Fischer): <4.0%

Melting Point: 132–138 °C

Storage Conditions: Light sensitive

Description: Erythromycin estolate, a derivative of Erythromycin, is the lauryl sulfate salt of the propionic ester of Erythromycin. It acts as a bacteriostatic agent, and has a role as an enzyme inhibitor. Erythromycin estolate is freely soluble in organic solvents but practically insoluble in water.

For other Erythromycin products, click here.

Mechanism of Action: Macrolide antibiotics inhibit bacterial growth by targeting the 50S ribosomal subunit preventing peptide bond formation and translocation during protein synthesis. Resistance to Erythromycin is commonly attributed to mutations in 50S rRNA preventing erythromycin binding allowing the cell to synthesize proteins free of error.

Spectrum: Erythromycin is a broad-spectrum antibiotic commonly targeting targeting Gram-negative and Gram-positive bacteria. It is also effective against Mycoplasmas including Mycoplasma pneumoniae.

Microbiology Applications: Erythromycin Estolate is commonly used in clinical in vitro microbiological antimicrobial susceptibility tests (panels, discs, and MIC strips) against Gram-positive, Gram-negative, and Mycoplasmas species. Medical microbiologists use AST results to recommend antibiotic treatment options for infected patients. Representative MIC values include:

- *Mycoplasma pneumoniae* 0.0019 µg/mL – 0.0078 µg/mL
- *Legionella pneumophila* 0.008 µg/mL – 1 µg/mL
- For a complete list of Erythromycin MIC values, click here.
References:


If you need any help, contact us: info@toku-e.com. Find more information on: www.toku-e.com/