Erythromycin

A broad-spectrum macrolide antibiotic that inhibits protein synthesis by targeting 50S ribosomal subunit.

A powerful macrolide antibiotic with broad-spectrum action against a range of bacterial infections is erythromycin powder. By binding to the 50S ribosomal subunit's 23S ribosomal RNA in sensitive bacteria, it inhibits protein synthesis by this mechanism of action. A necessary element for the synthesis of peptide bonds during protein translation, the peptidyl transferase center is disrupted by this interaction.

Many Gram-positive bacteria, such as *Streptococcus pneumoniae*, *Enterococcus faecalis*, and *Staphylococcus aureus*, are effectively inhibited by erythromycin. *Neisseria gonorrhoeae*, *Bordetella pertussis*, and *Legionella pneumophila* are just a few of the Gram-negative bacteria that it also exhibits activity against. Interestingly, *Chlamydia trachomatis* and *Mycoplasma pneumoniae* are two unusual infections that Erythromycin effectively inhibits.

Cat. Number	AS-2010
CAS Number	114-07-8
MDL Number	MFCD00084654
PubChem	310272642
Molecular Weight	733.93 g/mol
Molecular Formula	$C_{37}H_{67}NO_{13}$
Storage Temperature	4°C
Form and Color	Crystalline powder, white
Assay (on dry basis)	Min. 85%
Thiocyanate	≤ 0.3%
Water	≤ 6.5%
Sulphated ash	≤ 0.2%
Synonym	E-Base / E-Mycin / Erytromycin A