



SIGMA-ALDRICH

3050 Spruce Street
Saint Louis, Missouri 63103 USA
Telephone 800-325-5832 • (314) 771-5765
Fax (314) 286-7828
email: techserv@sial.com
sigma-aldrich.com

Product Information

Erythromycin

Product Number **E6376**
Store at Room Temperature

Product Description

Molecular Formula: $C_{37}H_{67}NO_{13}$

Molecular Weight: 733.9

CAS Number: 114-07-8

pK_a : 8.8

Extinction Coefficient: $E^M = 50$ (280 nm, pH 6.3)¹

This is an antimicrobial substance produced by the growth of certain strains of *Streptomyces erythreus*. It is a mixture consisting largely of erythromycin A with lesser amounts of erythromycins B and C.^{1,2} Erythromycin acts as an inhibitor of elongation at the transpeptidation step.

A suggested concentration for use is 100 mg/L. Depending upon the strain of bacteria, erythromycin has been used between 50 and 200 mg/L to control bacterial growth. It is stable in solution at 37 °C for 3 days.

Precautions and Disclaimer

For Laboratory Use Only. Not for drug, household or other uses.

Preparation Instructions

The product is soluble in water (2 mg/ml). A 0.067% solution in water has a pH of 8.0-10.5. This product is soluble in ethanol (50 mg/ml), yielding a clear, colorless to faint yellow solution. It is freely soluble in alcohol, acetone, chloroform, acetonitrile, and ethyl acetate. It readily forms salts with acids. Solutions should be protected from light.

References

1. The Merck Index, 11th ed., Entry# 3627.
2. Clarke's Isolation and Identification of Drugs, Moffat, A. C. et al., eds, The Pharmaceutical Press (London, GB: 1986), p. 589.
3. USP, **23**, p. 1693.

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