



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

Cefotaxime sodium salt

Product Number **C 7039**
Storage Temperature 2-8 °C

Product Description

Molecular Formula: $C_{16}H_{16}N_5NaO_7S_2$
Molecular Weight: 477.5
CAS Number: 64485-93-4
Synonym: Claforan

Cefotaxime is a broad spectrum antibiotic that inhibits the synthesis of bacterial cell walls. Chemically, it is closely related to the penicillins, but is not degraded by β -lactamases. Resistance is based on cephalosporinase production. Many bacteria possess naturally occurring cephalosporinases, which are induced in the presence of this product, rendering them resistant to the effects of cephalosporin compounds.^{1,2}

A further discussion on the characteristics of this antibiotic such as a list of organisms affected by this product is available.²

This product is plant cell culture tested. It is typically used at 50-250 mg/L to enhance regeneration and shoot development (initiation and elongation).³

Precautions and Disclaimer

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

Preparation Instructions

This product is soluble in water (50 mg/ml). It is practically insoluble in organic solvents. A 10% solution has a pH of between 4.5 and 6.5.²

References

1. The Merck Index, 11th ed., Entry# 1935.
2. Martindale The Extra Pharmacopoeia, 31st ed., Reynolds, J. E. F., ed., Royal Pharmaceutical Society (London, England: 1996), p. 189.
3. Yepes, L. M., and Aldwinckle, H. S., Factors that affect leaf regeneration efficiency in apple, and effect of antibiotics in morphogenesis. Plant Cell Tissue and Organ Culture, **37(3)**, 257-269 (1994).

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