

# Cephotaxime Solution 250mg/ml

With 250mg/ml Cephotaxime in sterile tissue culture grade water

**Product Code: A025**

## Product Description :

Molecular Formula:  $C_{16}H_{16}N_5NaO_7S_2$

Molecular Weight: 477.5

CAS number: 64485-93-4

Cephotaxime, a third generation cephalosporin antibiotic, has a broad-spectrum activity against Gram-positive and Gram-negative bacteria. It acts by blocking the cell wall mucopeptide biosynthesis, by inhibiting the cross-linking of peptidoglycan by binding and inactivating activity of transpeptidase. Gram-negative bacteria produce beta-lactamase enzymes which are stabilized by the syn-configuration of the methoxyimino moiety of the cephotaxime. This stabilization of the beta-lactamase enzyme enhances the activity of cephotaxime against the resistant Gram-negative bacteria.

Cephotaxime is used in plant tissue culture to eliminate *Agrobacterium* from regeneration medium in transformation protocols. In plant tissue culture it is typically used at a concentration of 50-250mg/L. Use of concentration as high as 500mg/L has also been documented.

A025 is a sterile filtered solution formulated to contain 250mg cephotaxime per ml.

## Directions :

Recommended working concentration is 0.2 to 1ml/L. It is recommended to determine optimum usage dose empirically for individual applications.

## Quality Control:

### Appearance

Clear, yellow coloured solution

### pH

5.50 -6.10

### Osmolality in mOsm/Kg H<sub>2</sub>O

800.00 -1000.00

### Sterility

No bacterial or fungal growth is observed after 14 days of incubation, as per USP specification.

### Cephotaxime Potency

235 - 265mg/ml

### Cultural Response

No toxicity to cells.

### Endotoxin content

NMT 0.5EU/ml

## Storage and Shelf Life:

Store at -20°C. Repeated freezing and thawing should be avoided. Once thawed, remaining portion can be aseptically dispensed into sterile container and frozen for future use.

Solution is stable for 2-3 weeks at 2-8°C.

Shelf life of the product is 18 months.

Use before expiry date given on the product label.

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## Disclaimer :

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