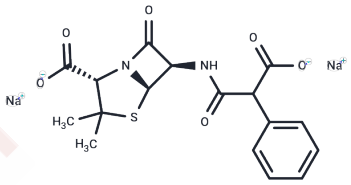
Data Sheet (Cat.No.T1143)

TargetMol

Carbenicillin disodium

Chemical Properties



CAS No. : 4800-94-6

Formula: C17H16N2Na2O6S

Molecular Weight: 422.36

Storage: The compound is unstable in solution. Please use soon
Powder: -20°C for 3 years
Actual storage temperature shall be subject to the COA.

Biological Description

Description	Carbenicillin disodium (BRL-2064) is a broad-spectrum, semi-synthetic penicillin antibiotic with bactericidal and beta-lactamase resistant activity.
Targets(IC50)	Cell wall,Antibacterial,Antibiotic
In vitro	In patients with cystic fibrosis, Carbenicillin (0.1μg/mL) exhibited no hypersensitivity drug reactions as measured by antibody levels. In chrysanthemums and TOBC, Carbenicillin (50 μg/mL) induced phytotoxicity in a concentration-dependent manner.
In vivo	Carbenicillin (125 mg/L) effectively suppresses the proliferation of soil bacteria, increases the volume of somatic embryos, and the number of somatic embryos per callus tissue. Within the callus tissue, Carbenicillin at concentrations of 250 mg/L to 500 mg/L can enhance the fresh weight of the tissue. At a higher concentration of 1 g/L, Carbenicillin reduces the germination frequency of leaf disc explants. Additionally, in vitro exposure of patients' isolated leukocytes to Carbenicillin (0.1 g/ml) does not result in histamine release.

Solubility Information

Solubility	H2O: < 1 mg/mL (insoluble),The compound is unstable in solution, please use soon. Ethanol: < 1 mg/mL (insoluble or slightly soluble),The compound is unstable in solution, please use soon. DMSO: 62.5 mg/mL (147.98 mM),Sonication is recommended. The compound is unstable in solution, please use soon. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (4.74 mM),Sonication is recommended. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.3676 mL	11.8382 mL	23.6765 mL
5 mM	0.4735 mL	2.3676 mL	4.7353 mL
10 mM	0.2368 mL	1.1838 mL	2.3676 mL
50 mM	0.0474 mL	0.2368 mL	0.4735 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

TA Yu, et al. Bot. Bull. Acad. Sin, 2001, 42, 281-286.
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Sarma KS, et al. Journal of Experimental Botany, 1995, 46(11), 1779-1781.
Miller NE, et al. Allergy, 1980, 35(2), 135-138.
Teixeira da Silva JA, et al. J. Appl. Hort., 2001, 3(1), 3-12.