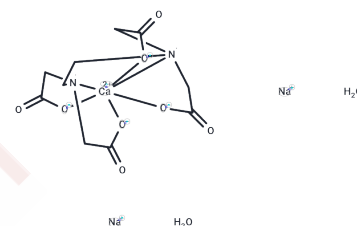


Ca(II)-EDTA disodium dihydrate

Chemical Properties

CAS No. : 6766-87-6
 Formula: C₁₀H₁₂CaN₂O₈.2H₂.2Na
 Molecular Weight: 410.3
 Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
 Actual storage temperature shall be subject to the COA.



Biological Description

Description	Ca II -EDTA disodium dihydrate (Calcium disodium EDTA dihydrate) serves as an orally active metal chelating agent, displaying bactericidal properties against periodontal pathogens such as <i>Aggregatibacter actinomycetemcomitans</i> , <i>Prevotella intermedia</i> , and <i>Porphyromonas gingivalis</i> [1]. Additionally, it is recognized as an effective chelating antidote for lead and cadmium poisoning [2] [3].
Targets(IC50)	Antibacterial
In vitro	Ca II -EDTA disodium dihydrate inhibits the growth of periodontal bacteria including <i>A. actinomycetemcomitans</i> , <i>P. intermedia</i> , and <i>P. gingivalis</i> at concentrations ranging from 0-100 mM, with respective MICs of 70, 70, and 60 mM [1]. At concentrations from 0-1000 mM, it exhibits cytotoxic effects on L929 cells, with a safe dosage determined at 75 mM [1]. A Cell Viability Assay [1] conducted on Murine L929 cells over a 24-hour incubation period at concentrations up to 1000 mM showed a dose-dependent decrease in cell viability, maintaining 93% survival at 75 mM.
In vivo	Administering Ca II -EDTA disodium dihydrate (50 mg/kg) orally to Sprague Dawley rats over a four-week period, with a three-day respite after every four consecutive days, alleviated the nephrotoxic and osteotoxic effects of cadmium. This treatment also significantly increased body weight, reduced serum creatinine levels, and decreased cadmium concentration, while improving the radiographic density of bones [2].

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.4372 mL	12.1862 mL	24.3724 mL
5 mM	0.4874 mL	2.4372 mL	4.8745 mL
10 mM	0.2437 mL	1.2186 mL	2.4372 mL
50 mM	0.0487 mL	0.2437 mL	0.4874 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.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481