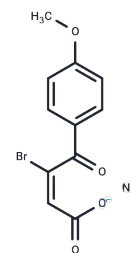


Cytembena

Chemical Properties

CAS No. :	21739-91-3
Formula:	C ₁₁ H ₈ BrNaO ₄
Molecular Weight:	307.07
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	Cytembena is a cytostatic and a carcinogenic compound that may increase the incidence of fibroadenomas. Cytembena broadly inhibits DNA biosynthesis.
Targets(IC50)	DNA/RNA Synthesis
In vivo	Cytembena was given i.p. in doses of 5, 10, 20, 40, and 80 mg/kg body wt. to Wistar rats and in doses of 20, 40, and 80 mg/kg body wt. to ICR mice and to Chinese hamsters. Five patients with various types of malignancy, so far medically untreated, received 20 mg Cytembena/kg body wt i.v. A combination of Cytembena and cyclophosphamide was applied i.p. in single equal doses 1: 1 of 5, 10, 20, and 40 mg/kg body wt to ICR mice, Chinese hamsters, and Wistar rats. Patients were given i.v. 20 mg Cytembena and 20 mg cyclophosphamide/kg body wt. Bone marrow cells were examined 24 h after the administration. The frequency of abnormal metaphases and chromosomal breaks after Cytembena treatment was low; nonetheless, the indicated dose-effect relationship was found in all the rodents used. The frequency of chromosomal breaks was 2-3 times higher in rodents in comparison with men, after treatment with a dose of 20 mg Cytembena/kg body wt. The highest frequencies of induced aberrations were found in mice. The rodents appeared to be 3--4 times more sensitive to the induction of chromosomal breaks and abnormal metaphases than men, after a dose of 20 mg Cytembena and 20 mg cyclophosphamide/kg body wt.[1]

Solubility Information

Solubility	DMSO: 60 mg/mL (195.4 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.2566 mL	16.2829 mL	32.5659 mL
5 mM	0.6513 mL	3.2566 mL	6.5132 mL
10 mM	0.3257 mL	1.6283 mL	3.2566 mL
50 mM	0.0651 mL	0.3257 mL	0.6513 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

Goetz P, et al. Relationship between experimental results in mammals and man. II. Cytogenetic analysis of bone-marrow cells after treatment of cytembena and cyclophosphamide- cytembena combination. *Mutat Res.* 1976 Nov 1;41(1 spel. no):143-52.

Schück O, et al. Pharmacokinetics of Cytembena in chronic renal impairment. *Neoplasma.* 1976;23(2):161-70.

Jackson RC, et al. The reaction of Cytembena with cellular thiol compounds. *Neoplasma.* 1976;23(4):355-62.

Falkson HC, et al. Phase II trial of cytembena in patients with advanced ovarian and breast cancer. *Cancer Treat Rep.* 1976 Nov;60(11):1655-8.

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