Data Sheet (Cat.No.T14864)

TargetMol

Caracemide

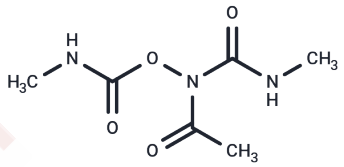
Chemical Properties

CAS No. : 81424-67-1

Formula: C6H11N3O4

Molecular Weight: 189.17

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	Caracemide (NSC-253272) inhibits the enzyme ribonucleotide reductase of Escherichia coli and can be utilized in anticancer studies.
Targets(IC50)	Antibacterial,DNA/RNA Synthesis
In vitro	Caracemide produces severe central nervous system (CNS) toxicity because of the toxic metabolite, methylisocyanate (MIC). Caracemide inactivates R1 by covalent modification at the substrate-binding site[1].
In vivo	After administration of Caracemide (6.6 mg/kg;i.p.), the mercapturic acid derivative AMCC was identified in rats urine[2].

Solubility Information

Solubility	DMSO: 95 mg/mL (502.19 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 3.3 mg/mL (17.44 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	5.2863 mL	26.4313 mL	52.8625 mL
5 mM	1.0573 mL	5.2863 mL	10.5725 mL
10 mM	0.5286 mL	2.6431 mL	5.2863 mL
50 mM	0.1057 mL	0.5286 mL	1.0573 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

Larsen IK, et al. Caracemide, a site-specific irreversible inhibitor of protein R1 of Escherichia coli ribonucleotide reductase. J Biol Chem. 1992 Jun 25;267(18):12627-31.

Slatter JG, et al. Studies on the metabolic fate of caracemide, an experimental antitumor agent, in the rat. Evidence for the release of methyl isocyanate in vivo. Chem Res Toxicol. 1993 May-Jun;6(3):335-40.