Product Data Sheet

Product Name: Caracemide
Cat. No.: GC38896

Chemical Properties

Cas. No.	81424-67-1		
SMILES	CC(N(OC(NC)=O)C(NC)=O)=O		
Formula	$C_6H_{11}N_3O_4$	M.Wt	189.17
Solubility	DMSO : 100 mg/mL (528.63 mM; Need ultrasonic)	Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 ℃ and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20℃ for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		
Structure	Caracemide		

Background

Caracemide (NSC-253272) inhibits the enzyme ribonucleotide reductase of Escherichia coli. Caracemide is a novel anticancer agent derived from a hydroxamic acid and has demonstrated to produce severe central nervous system (CNS) toxicity[1][2].

Caracemide inactivates R1 by covalent modification at the substrate-binding site and has a toxic metabolite, methylisocyanate (MIC), in vivo[1][2].

The mercapturic acid derivative AMCC was identified in urine rats following administration to rats of a single i.p. dose (6.6 mg/kg) of caracemide (NSC-253272)[1]. .

[1]. 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. [2]. 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.

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