

Aminopterin

Chemical Properties

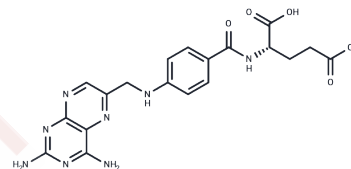
CAS No. : 54-62-6

Formula: C₁₉H₂₀N₈O₅

Molecular Weight: 440.41

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	Aminopterin (4-Aminofolic acid) is a synthetic folic acid derivative whose metabolite is a competitive inhibitor of dihydrofolate reductase
Targets(IC50)	Antifolate
In vivo	Aminopterin has anticancer and immunosuppressive properties. Formulations containing it have been used for pediatric leukemia though methotrexate is now more commonly used due to a more favorable therapeutic index[1]

Solubility Information

Solubility	DMSO: 22.73 mg/mL (51.61 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Saline: 2.27 mg/mL (5.15 mM),Suspension. <i>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.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.2706 mL	11.3531 mL	22.7061 mL
5 mM	0.4541 mL	2.2706 mL	4.5412 mL
10 mM	0.2271 mL	1.1353 mL	2.2706 mL
50 mM	0.0454 mL	0.2271 mL	0.4541 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

Cole, P. D . Phase II Trial of Oral Aminopterin for Adults and Children with Refractory Acute Leukemia[J]. Clinical Cancer Research, 2005, 11(22):8089-8096.

Littlefield, J. W . Selection of Hybrids from Matings of Fibroblasts in vitro and Their Presumed Recombinants[J]. Science, 1964, 145(3633):709-710.

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