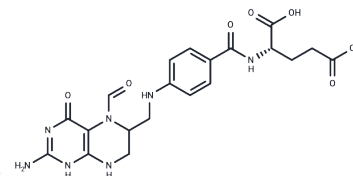


Folinic acid

Chemical Properties

CAS No. : 58-05-9
Formula: C₂₀H₂₃N₇O₇
Molecular Weight: 473.44
Appearance: no data available
Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year



Biological Description

Description	Folinic acid (Leucovorin) is a biofolic acid that can be used in the treatment of methotrexate, often in combination with Methotrexate (MTX) to reduce MTX-induced toxicity, and can be used as an adjuvant treatment for colon cancer.
Targets(IC50)	Endogenous Metabolite,Antifolate
In vitro	Methotrexate (MTX) alone induces a concentration-dependent increase in the percentage of micronucleated binucleated cells (MNBN) and abnormal cells (Abs). As the concentration of MTX increases, the nuclear division index (NDI) decreases. Similarly, the mitotic index (MI) also decreases at all tested concentrations of MTX. The addition of 50 µg/mL folinic acid significantly reduces the % MNBN (40-68%) and % Abs (36-77%). In the presence of 5 µg/mL folinic acid, inhibitory effects are observed as well (MNBN from 12% to 54%, Abs from 20% to 61%)[2].
In vivo	Treatment with folinic acid (7.0 mg/kg; intraperitoneal injection; every other day; for 3 weeks) appears to reverse the growth inhibition induced by Methotrexate (MTX) administration in young male Balb/c mice. Long-term MTX administration is known to inhibit skeletal growth in mice[1].

Solubility Information

Solubility	DMSO: 55 mg/mL (116.17 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	2.1122 mL	10.561 mL	21.122 mL
5 mM	0.4224 mL	2.1122 mL	4.2244 mL
10 mM	0.2112 mL	1.0561 mL	2.1122 mL
50 mM	0.0422 mL	0.2112 mL	0.4224 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.

Reference

Iqbal MP, et al. Effect of methotrexate and folinic acid on skeletal growth in mice. Acta Paediatr. 2003 Dec;92(12):1438-44.

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