

Folic acid

Chemical Properties

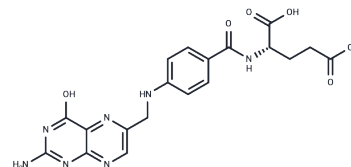
CAS No. : 59-30-3

Formula: C₁₉H₁₉N₇O₆

Molecular Weight: 441.4

Appearance: no data available

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year



Biological Description

Description	Folic acid (Vitamin B9)(Vitamin M; Vitamin B9) is indispensable for the production and maintenance of new cells, for DNA/RNA synthesis.
Targets(IC50)	DNA/RNA Synthesis,Endogenous Metabolite
In vitro	Folic acid treatment induces dose-related increases in BRCA1 mRNA expression in HepG2, Huh-7D12, Hs578T, and JURKAT and in BRCA2 in HepG2, Hs578T, MCF7, and MDA-MB-157 cells. FA does not affect the corresponding normal cells or on any of the ovarian cell lines. Folic acid induces increased BRCA1 protein expression in Hs578T, but not HepG2 cells, whereas BRCA2 protein levels are undetectable. FA treatment does not alter DNA repair in liver-derived cells, whereas there are transient effects on breast-derived cells. There is no effect of FA treatment on BRCA1 or BRCA2 DNA methylation, although there is some variation in the methylation of specific CpG loci between some cell lines[1].
Cell Research	To determine the effect of FA supplementation on BRCA1 and BRCA2 mRNA expression, all cell lines were treated with 0, 25, 50, 75, or 100 nmol/L FA for 72 hours before harvesting in TRI Reagent according to the manufacturer's instructions. (Only for Reference)

Solubility Information

Solubility	DMSO: 50 mg/mL (113.28 mM), (< 1 mg/ml refers to the product slightly soluble or insoluble)
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A DRUG SCREENING EXPERT

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.2655 mL	11.3276 mL	22.6552 mL
5 mM	0.4531 mL	2.2655 mL	4.531 mL
10 mM	0.2266 mL	1.1328 mL	2.2655 mL
50 mM	0.0453 mL	0.2266 mL	0.4531 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

Price RJ, et al. Nutr Res. 2015, 35(6):532-544.

Zhao Y, Li Y, Zhu R, et al. RPS15 interacted with IGF2BP1 to promote esophageal squamous cell carcinoma

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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