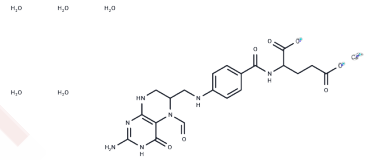
Data Sheet (Cat.No.T0148L)

TargetMol

Folinic Acid Calcium Salt Pentahydrate

Chemical Properties



CAS No. : 6035-45-6

Formula: C20H21CaN7O7·5H2O

Molecular Weight: 601.58

Storage: Keep away from direct sunlight,Store under nitrogen
Powder: -20°C for 3 years
Actual storage temperature shall be subject to the COA.

Biological Description

Description	Folinic Acid Calcium Salt Pentahydrate (Leucovorin Calcium Pentahydrate), a reduced folic acid, is used in combination with other chemotherapeutics.
Targets(IC50)	Endogenous Metabolite,Antifolate
In vitro	Administering either 100 or 200 mg/kg of Leucovorin bi-daily for 4-6 days reduced the concentration of RTX in the liver by 2-4 fold compared to the control group in mice. Post severe weight loss and diarrhea, dosing mice with 200 mg/kg of Leucovorin twice daily for 5-7 days prevented further weight decline and initiated early recovery. Concurrent use of Leucovorin/5-FU with a gastric and colorectal cancer vaccine (200 mg/ml) enhanced the therapeutic effect on the growth of DHDK12 tumors in vivo.
In vivo	In both tumor and normal tissues, Leucovorin acts as a reduced folate cofactor, competitively transporting and promoting polyglutamation with RTX, thereby serving as a potential rescue agent. In CCRF-CEM cells, Leucovorin enhances the toxicity of trimethoprim/fluorouracil but does not increase the toxicity of methotrexate/fluorouracil. It also enhances the cytotoxicity of RTX and reverses growth inhibition. Exposure to 20 mM Leucovorin in 11 human colon cancer cell lines results in increased cytotoxicity. The augmentation of Leucovorin slows the reduction of folate levels in tissues, thus enhancing the inhibitory effect of thymidylate synthase on murine colonic tumors.

Solubility Information

Solubility	H2O: 14.3 mg/mL (23.77 mM),Sonication is recommended. DMSO: Insoluble, (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.6623 mL	8.3114 mL	16.6229 mL
5 mM	0.3325 mL	1.6623 mL	3.3246 mL
10 mM	0.1662 mL	0.8311 mL	1.6623 mL
50 mM	0.0332 mL	0.1662 mL	0.3325 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

Van der Wilt CL, et al. Cancer Res, 1992, 52(18), 4922-4928.
Correale P, et al. J Immunol, 2005, 175(2), 820-828.
Park JG, et al. J Natl Cancer Inst, 1988, 80(19), 1560-1564.
Romanini A, et al. J Natl Cancer Inst, 1992, 84(13), 1033-1038.
Farrugia DC, et al. Clin Cancer Res, 2000, 6(9), 3646-3656.