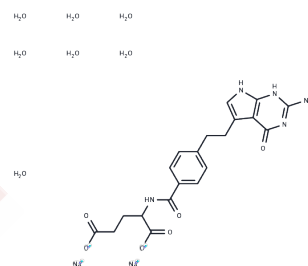


Pemetrexed disodium heptahydrate

Chemical Properties

CAS No. :	357166-29-1
Formula:	C ₂₀ H ₃₃ N ₅ Na ₂ O ₁₃
Molecular Weight:	597.49
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	Pemetrexed disodium heptahydrate (LY231514) is an antifolate that inhibits thymidylate synthase (TS), dihydrofolate reductase (DHFR), and glycinyl-adenosine 5'-monophosphate (GARMT) with K _i values of 1.3 nM, 7.2 nM, and 65 nM respectively. This inhibits the formation of precursor purine and pyrimidine nucleotides and cancer cell proliferation, making it suitable for research into pleural mesothelioma and non-small cell lung cancer (NSCLC).
Targets(IC50)	Antifolate, Autophagy, DHFR, DNA/RNA Synthesis
In vivo	The survival analysis results showed that the survival time of mice treated with Pemetrexed disodium heptahydrate combined with Pemetrexed was significantly longer than that of mice treated with Pemetrexed disodium heptahydrate alone, rat IgG combined with Pemetrexed, or those receiving no treatment. [2]

Solubility Information

Solubility	H ₂ O: 80 mg/mL (133.89 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	1.6737 mL	8.3683 mL	16.7367 mL
5 mM	0.3347 mL	1.6737 mL	3.3473 mL
10 mM	0.1674 mL	0.8368 mL	1.6737 mL
50 mM	0.0335 mL	0.1674 mL	0.3347 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

Shih C, et al. LY231514, a pyrrolo[2,3-d]pyrimidine-based antifolate that inhibits multiple folate-requiring enzymes. *Cancer Res.* 1997 Mar 15;57(6):1116-23.

Anraku M, et al. Synergistic antitumor effects of regulatory T cell blockade combined with pemetrexed in murine malignant mesothelioma. *J Immunol.* 2010 Jul 15;185(2):956-66.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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