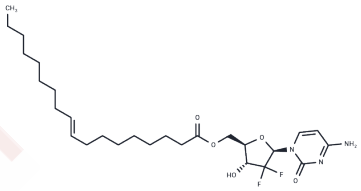
Data Sheet (Cat.No.T15378)

TargetMol

Gemcitabine elaidate

Chemical Properties



CAS No. : 210829-30-4

Formula: C27H43F2N3O5

Molecular Weight: 527.64

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	Gemcitabine elaidate (CP-4126), is a lipophilic, unsaturated fatty acid ester derivative of gemcitabine (dFdC), an antimetabolite deoxynucleoside analogue, with potential antineoplastic activity. Upon hydrolysis intracellularly by esterases, the prodrug gemcitabine is converted into the active metabolites difluorodeoxycytidine di- and triphosphate (dFdCDP and dFdCTP) by deoxycytidine kinase. dFdCDP inhibits ribonucleotide reductase, thereby decreasing the deoxynucleotide pool available for DNA synthesis; dFdCTP is incorporated into DNA, resulting in DNA strand termination and apoptosis.
Targets(IC50)	Apoptosis,Nucleoside Antimetabolite/Analog,Autophagy
In vitro	Gemcitabine analog Upon hydrolysis intracellularly by esterases, the prodrug gemcitabine is converted into the active metabolites difluorodeoxycytidine di- and triphosphate (dFdCDP and dFdCTP) by deoxycytidine kinase. dFdCDP inhibits ribonucleotide reductase, thereby decreasing the deoxynucleotide pool available for DNA synthesis; dFdCTP is incorporated into DNA, resulting in DNA strand termination and apoptosis. Gemcitabine 5'-elaidic acid ester shows an enhanced cellular uptake and accumulation, resulting in increased conversion to active metabolites, compared to gemcitabine. This formulation of gemcitabine may be less susceptible to deamination and deactivation by deoxycytidine deaminase. Check for active clinical trials or closed clinical trials using this agent.

Solubility Information

Solubility	DMSO: 26 mg/mL (49.28 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween-80+45% Saline: 2 mg/mL (3.79 mM),Sonication is recommended. *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.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.8952 mL	9.4762 mL	18.9523 mL
5 mM	0.379 mL	1.8952 mL	3.7905 mL
10 mM	0.1895 mL	0.9476 mL	1.8952 mL
50 mM	0.0379 mL	0.1895 mL	0.379 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.