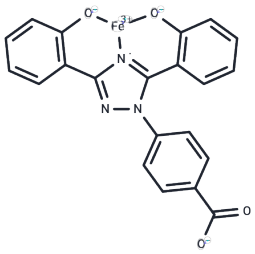
Data Sheet (Cat.No.T13639)

TargetMol

Deferasirox (Fe3+ chelate)

Chemical Properties



CAS No. : 554435-83-5

Formula: C21H12FeN3O4

Molecular Weight: 426.18

Storage: Store at low temperature
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	Deferasirox (Fe3+ chelate) is an orally available iron chelator with potential anticancer activity, inhibits the anti-apoptotic activity of MCL-1, and can be used to study iron overload.
Targets(IC50)	Apoptosis,Ferroptosis,Antibacterial
In vitro	Deferasirox (Fe3+ chelate) promotes cell cycle arrest in cervical cancer cell lines by regulating the expression of cell cycle regulatory factors cyclin D1, cyclin E, and proliferating cell nuclear antigen (PCNA)[1].

Solubility Information

Solubility	DMSO: 30 mg/mL (70.39 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 (4.69 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	2.3464 mL	11.7321 mL	23.4643 mL
5 mM	0.4693 mL	2.3464 mL	4.6929 mL
10 mM	0.2346 mL	1.1732 mL	2.3464 mL
50 mM	0.0469 mL	0.2346 mL	0.4693 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

Zhou N, et al. Deferasirox shows inhibition activity against cervical cancer in vitro and in vivo. Gynecol Oncol. 2022 Jul;166(1):126-137.
Ishimaru K, et al. Deferasirox Targeting Ferroptosis Synergistically Ameliorates Myocardial Ischemia Reperfusion Injury in Conjunction With Cyclosporine A. J Am Heart Assoc. 2024 Jan 2;13(1):e031219.
Sedgwick AC,et al. Deferasirox (ExJade): An FDA-Approved AIEgen Platform with Unique Photophysical Properties. J Am Chem Soc. 2021 Jan 27;143(3):1278-1283.
Babu T, et al. Effectiveness and tolerability of twice daily dosing of deferasirox in unresponsive and intolerant transfusion-dependent beta-thalassemia patients: A narrative review. Indian J Pharmacol. 2020 Nov-Dec;52(6):514-519.
Kwan P,et al. Effects of Deferasirox in Alzheimer's Disease and Tauopathy Animal Models. Biomolecules. 2022 Feb 25;12(3):365.