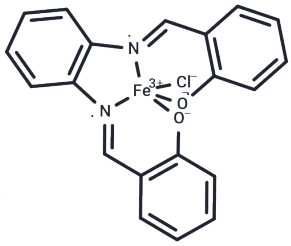
Data Sheet (Cat.No.T37851)

TargetMol

Chlorido[N,N'-disalicylidene-1,2-phenylenediamine]iron(III)

Chemical Properties



CAS No. : 39916-28-4

Formula: C20H14ClFeN2O2

Molecular Weight: 405.64

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	Chlorido[N,N'-disalicylidene-1,2-phenylenediamine]iron(III) is a Schiff base-iron(III) complex with potential photosensitizing activity. It triggers tumor cell apoptosis by efficiently catalyzing intracellular ROS bursts under specific irradiation, leading to severe oxidative damage and mitochondrial dysfunction.
Targets(IC50)	ROS
In vitro	Chlorido[N,N'-disalicylidene-1,2-phenylenediamine]iron(III) shows potent activity (IC50: 0.07 uM) by inducing lipid peroxidation and triggering ferroptosis [1].

Solubility Information

Solubility	DMSO: 7 mg/mL (17.26 mM),Sonication is recommmended. DMF: 10 mg/mL (24.65 mM),Sonication is recommmended. PBS (pH 7.2): Soluble Ethanol: < 1 mg/mL (insoluble),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.4652 mL	12.3262 mL	24.6524 mL
5 mM	0.493 mL	2.4652 mL	4.9305 mL
10 mM	0.2465 mL	1.2326 mL	2.4652 mL
50 mM	0.0493 mL	0.2465 mL	0.493 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

Merrill Jr A H, Sandhoff K. Sphingolipids: Metabolism and cell signaling[M]//New comprehensive biochemistry. Elsevier, 2002, 36: 373-407.

Lee, S.-Y., Hille, A., Kitanovic, I., et al. [FeIII(salophene)Cl], a potent iron salophene complex overcomes multiple drug resistance in lymphoma and leukemia cells. Leuk. Res. 35(3), 387-393 (2011).