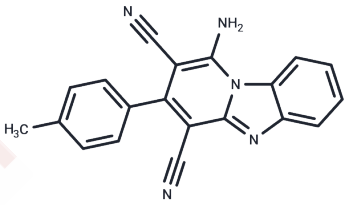
Data Sheet (Cat.No.T11631)

TargetMol

iFSP1

Chemical Properties



CAS No. :	150651-39-1
Formula:	C20H13N5
Molecular Weight:	323.35
Storage:	The compound is unstable in solution. Please use soon Powder: -20°C for 3 years Actual storage temperature shall be subject to the COA.

Biological Description

Description	iFSP1, a potent, selective, and glutathione-independent ferroptosis suppressor protein 1 (FSP1) (AIFM2) inhibitor with an EC50 of 103 nM, sensitizes diverse human cancer cell lines to ferroptosis inducers like (1S,3R)-RSL3. It uniquely triggers ferroptosis in GPX4-knockout cells overexpressing FSP1.
Targets(IC50)	Ferroptosis
In vitro	iFSP1 (0.001-1 μM; 24 hours) is less effective than genetic deletion of FSP1, and its treatment in the FSP1-knockout background does not enhance RSL3-induced ferroptosis. iFSP1 (3 μM; 24 hours) causes significant toxicity of RSL3 in a panel of genetically engineered (FSP1-knockout) human cancer cell lines. AIFM2, now renamed ferroptosis suppressor protein 1 (FSP1), is identified as a previously unrecognized anti-ferroptotic gene. iFSP1 (0.001-1 μM; 24 hours) inhibits the growth of Gpx4-knockout cells in a dose-dependent manner but does not affect wild type cells. Treatment with the ferroptosis inhibitor Lip-1 protects GPX4-knockout cells from iFSP1-induced ferroptosis.

Solubility Information

Solubility	DMSO: 25 mg/mL (77.32 mM),Sonication is recommended.The compound is unstable in solution, please use soon. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.0926 mL	15.4631 mL	30.9262 mL
5 mM	0.6185 mL	3.0926 mL	6.1852 mL
10 mM	0.3093 mL	1.5463 mL	3.0926 mL
50 mM	0.0619 mL	0.3093 mL	0.6185 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

Doll S, et al. FSP1 is a glutathione-independent ferroptosis suppressor.Nature. 2019 Nov;575(7784):693-698.
Shi Y, Xu N, Liu B, et al.Mifepristone protects acetaminophen induced liver injury through NRF2/GSH/GST mediated ferroptosis suppression.Free Radical Biology and Medicine.2024