

Erastin2

Chemical Properties

CAS No. : 1695533-44-8

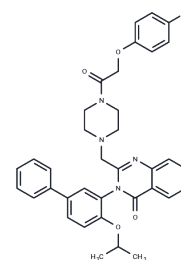
Formula: C₃₆H₃₅ClN₄O₄

Molecular Weight: 623.14

Store at low temperature

Storage: Store at -20°C

Actual storage temperature shall be subject to the COA.



Biological Description

Description	Erastin2 is a ferroptosis inducer and inhibitor of the system xc- cystine/glutamate transporter.[1][2] It inhibits glutamate release in CCF-STTG1 cells (IC ₅₀ = 0.0035 μM) and induces cell death in HAP1 cells at 5 μM, an effect blocked by ferrostatin-1 or deferoxamine.[1][2] Erastin2 also induces ferroptotic cell death in HT-1080 cells (EC ₅₀ = 0.15 μM), an effect blocked by β-mercaptoethanol (EC ₅₀ > 20 μM).[3] Additionally, it increases lipid peroxidation in HT-1080 cells at 1 μM.
Targets(IC ₅₀)	Ferroptosis

Solubility Information

Solubility	DMF: 1 mg/mL (1.6 mM),Sonication is recommended. DMSO: 27.3 mg/mL (43.81 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Saline: < 2.73 mg/mL (4.38 mM),Lower concentrations may be soluble, but exact solubility limit is unknown. 10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2.73 mg/mL (4.38 mM),Solution. <i>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.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.6048 mL	8.0239 mL	16.0478 mL
5 mM	0.321 mL	1.6048 mL	3.2096 mL
10 mM	0.1605 mL	0.8024 mL	1.6048 mL
50 mM	0.0321 mL	0.1605 mL	0.321 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

Cao JY, et al. A Genome-wide Haploid Genetic Screen Identifies Regulators of Glutathione Abundance and Ferroptosis Sensitivity. *Cell Rep.* 2019 Feb 5;26(6):1544-1556.e8.

Dixon SJ, et al. Pharmacological inhibition of cystine-glutamate exchange induces endoplasmic reticulum stress and ferroptosis. *Elife.* 2014 May 20;3:e02523.

Tipping E, Ketterer B, Christodoulides L, Enderby G. The non-covalent binding of small molecules by ligandin. Interactions with steroids and their conjugates, fatty acids, bromosulphophthalein carcinogens, glutathione and related compounds. *Eur J Biochem.* 1976 Aug 16;67(2):583-90.

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