TargetMol
A DRUG SCREENING EXPERT

Piperazine Erastin

Chemical Properties

CAS No.:	1538593-71-3
Formula：	C35H41ClN6O4
Molecular Weight：	645.19
Appearance:	N/A
Storage：	0-4℃ for short term (days to weeks), or -20℃ for long term (months).
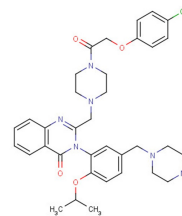
Biological Description

Description	Piperazine erastin is an analog of erastin. It causes an iron-dependent form of non-apoptotic cell death termed ferroptosis.
Targets(IC$_{50}$)	Others: None
In vitro	Piperazine erastin is affected similarly by cell death modulators as erastin and displays a distinct pattern from other non-FIN lethal compounds. Piperazine erastin is a more effective analog of erastin which is more water-soluble (0.086 mM for erastin versus 1.4 mM for piperazine erastin) and more metabolically stable [1].
In vivo	A significant delay in tumor growth is observed in the piperazine erastin-treated group compared to the vehicle-treated group, in the xenograft mouse model. Ptgs2 is upregulated in mouse liver with piperazine erastin (10 or 60 mg/kg) administration[1].

Solubility Information

Solubility	DMSO: 33.33 mg/mL (51.66 mM) (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.55 mL	7.75 mL	15.499 mL
5 mM	0.31 mL	1.55 mL	3.1 mL
10 mM	0.155 mL	0.775 mL	1.55 mL
50 mM	0.031 mL	0.155 mL	0.31 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 ℃ for 6 months; - 20 ℃ for 1 month. Please use it as soon as possible.

Reference

1. Yang WS, et al. Regulation of ferroptotic cancer cell death by GPX4. Cell. 2014 Jan 16;156(1-2):317-331.

Inhibitors · Natural Compounds · Compound Libraries

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Tel:781-999-4286   E-mail:info@targetmol.com   Address:36 Washington Street,Wellesley Hills,MA 02481