

Product Data Sheet

Product Name: Piperazine Erastin

Cat. No.: GC36926

Chemical Properties

Cas. No. 1538593-71-3

SMILES O=C1N(C2=CC(CN3CCNCC3)=CC=C2OC(C)C)C(CN4CCN(C(COC5=CC=C(Cl)C=C5)=O)CC4)=NC6=C1C=CC=C6

Formula $C_{35}H_{41}ClN_6O_4$ M.Wt 645.19

Solubility DMSO: 33.33 mg/mL (51.66 mM);
Water: < 0.1 mg/mL (insoluble) Storage Store at -20°C

General tips For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.

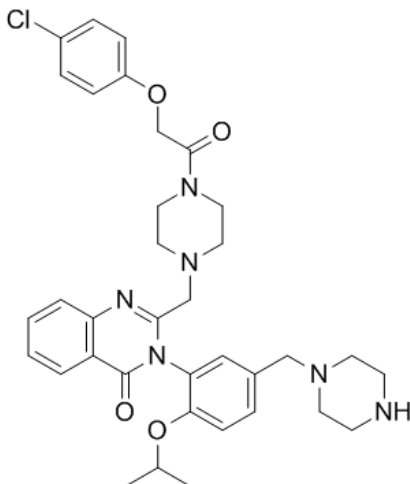
Caution: Product has not been fully validated for medical applications. For research use only.

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

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Structure



Background

Piperazine erastin is an analog of erastin which induces an iron-dependent form of non-apoptotic cell death, termed ferroptosis.

Erastin is a ferroptosis activator. It triggers a unique iron-dependent form of non-apoptotic cell death that is termed as ferroptosis. 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. Piperazine erastin is affected similarly by cell death modulators as erastin and displays a distinct pattern from other non-FIN lethal compounds[1].

In the xenograft mouse model, a significant delay in tumor growth is observed in the piperazine erastin-treated group compared to the vehicle-treated group. Ptgs2 is upregulated in mouse liver with 10 or 60 mg/kg piperazine erastin administration[1].

[1]. Yang WS, et al. Regulation of ferroptotic cancer cell death by GPX4. Cell. 2014 Jan 16;156(1-

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2):317-331.

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