SZABO SCANDIC

Part of Europa Biosite

# Produktinformation

- Forschungsprodukte & Biochemikalien
- Zellkultur & Verbrauchsmaterial
- Diagnostik & molekulare Diagnostik
- Laborgeräte & Service

Weitere Information auf den folgenden Seiten!
See the following pages for more information!

## Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

## Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand


**SZABO-SCANDIC HandelsgmbH**

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

mail@szabo-scandic.com

www.szabo-scandic.com

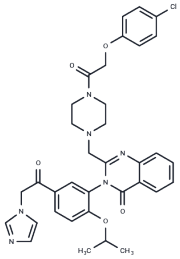
linkedin.com/company/szaboscandic

# Data Sheet (Cat.No.T5523)

TargetMol

## Imidazole ketone erastin

### Chemical Properties



CAS No. : 1801530-11-9

Formula: C35H35ClN6O5

Molecular Weight: 655.14

Appearance: no data available

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

### Biological Description

| | |
|---|---|
| Description | Imidazole ketone erastin (IKE) is an ferroptosis inducer with inhibitory effects on system Xc-cystine/glutamate transporter proteins. Imidazole ketone erastin has antitumor activity and induces glutathione depletion and lipid peroxidation. |
| Targets(IC50) | Ferroptosis |
| In vitro | METHODS: Human astrocytoma cells CCF-STTG1 were incubated with Imidazole ketone erastin for 2 h. Glutamate released into the medium was detected using glutamate oxidase, horseradish peroxidase, and Amplex UltraRed fluorimetric assay.<br>RESULTS: The IC50 for system xc- inhibition by Imidazole ketone erastin was 30 nM. [1]<br>METHODS: 18 DLBCL cell lines were treated with Imidazole ketone erastin (0.0001-100 μM) for 24 h. Cell viability was measured using the Cell Titor-Glo luminescent cell viability test.<br>RESULTS: DLBCL cell lines showed different sensitivities to Imidazole ketone erastin inhibition. 7 cell lines with IC50 <100 nM were categorized as sensitive; 5 cell lines with IC50 >10 μM were categorized as resistant; and 6 cell lines with IC50 between 100 nM and 10 μM were categorized as moderately resistant. [2] |
| In vivo | **METHODS**: To detect anti-tumor activity in vivo, Imidazole ketone erastin (23-40 mg/kg, 5% DMSO in HBSS at pH 4) was injected intraperitoneally into NCG mice harboring human diffuse histiocytic lymphoma SUDHL6 once daily for thirteen days.<br>**RESULTS**: Imidazole ketone erastin inhibited tumor growth in vivo. [2]<br>**METHODS**: To test the antitumor activity in vivo, Imidazole ketone erastin (40 mg/kg every two days) and liproxstatin-1 (10 mg/kg once a day) were intraperitoneally injected into C57BL/6 mice with the hepatocellular carcinoma tumor Hepa1-6 for ten days on either a control (Met+) or a methionine-free (Met-) diet. Met-) diet.<br>**RESULTS**: In mice receiving the control diet, Imidazole ketone erastin treatment effectively reduced tumor growth, and this effect was completely blocked by liproxtatin-1. However, in mice receiving a methionine-free diet, Imidazole ketone erastin treatment failed to inhibit tumor growth. [3] |

### Solubility Information

| | |
|---|---|
| Solubility | DMSO: 18.33 mg/mL (27.98 mM),Sonication is recommended.<br>(< 1 mg/ml refers to the product slightly soluble or insoluble) |

Preparing Stock Solutions

| | 1mg | 5mg | 10mg |
|---|---|---|---|
| 1 mM | 1.5264 mL | 7.632 mL | 15.2639 mL |
| 5 mM | 0.3053 mL | 1.5264 mL | 3.0528 mL |
| 10 mM | 0.1526 mL | 0.7632 mL | 1.5264 mL |
| 50 mM | 0.0305 mL | 0.1526 mL | 0.3053 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.

Reference

Liu D, Liang C, Huang B, et al.Tryptophan Metabolism Acts as a New Anti-Ferroptotic Pathway to Mediate Tumor Growth.Advanced Science.2023: 2204006.