



# 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

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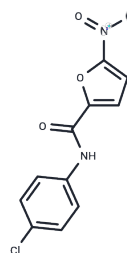
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## LCS3

## Chemical Properties

|                   |                                                                |
|-------------------|----------------------------------------------------------------|
| CAS No. :         | 109844-92-0                                                    |
| Formula:          | C <sub>11</sub> H <sub>7</sub> ClN <sub>2</sub> O <sub>4</sub> |
| Molecular Weight: | 266.64                                                         |
| Appearance:       | no data available                                              |
| Storage:          | Powder: -20°C for 3 years   In solvent: -80°C for 1 year       |



## Biological Description

|                            |                                                                                                                                                                                                                                                                                                                                                                                                               |
|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Description                | LCS3 is a reversible and non-competitive synergistic inhibitor of glutathione disulfide reductase (GSR) and thioredoxin reductase 1 (TXNRD1) with IC <sub>50</sub> s of 3.3 $\mu$ M and 3.8 $\mu$ M, respectively. LCS3 has antitumour activity, induces apoptosis and can be used in the study of lung adenocarcinoma (LUAD).                                                                                |
| Targets(IC <sub>50</sub> ) | Apoptosis, Glutathione reductase                                                                                                                                                                                                                                                                                                                                                                              |
| In vitro                   | LCS3 (5 nM-10 $\mu$ M ; 96 h) effectively inhibits lung cancer cell lines, while non-transformed lung cells show no signs of inhibition.[1]<br>LCS3 (3 $\mu$ M ; 3, 6, and 12 h) induces ROS and NRF2 pathway activation in sensitive lung adenocarcinoma (LUAD) cells.[1]<br>LCS3 (3 $\mu$ M ; 96 h) selectively kills lung adenocarcinoma (LUAD) cell lines, in part through the induction of apoptosis.[1] |

## Solubility Information

|            |                                                                                                                                               |
|------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| Solubility | DMSO: 112.5 mg/mL (421.9 mM), Sonication and heating to 60°C are recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble) |
|------------|-----------------------------------------------------------------------------------------------------------------------------------------------|

## Preparing Stock Solutions

|       | 1mg       | 5mg        | 10mg       |
|-------|-----------|------------|------------|
| 1 mM  | 3.7504 mL | 18.7519 mL | 37.5038 mL |
| 5 mM  | 0.7501 mL | 3.7504 mL  | 7.5008 mL  |
| 10 mM | 0.375 mL  | 1.8752 mL  | 3.7504 mL  |
| 50 mM | 0.075 mL  | 0.375 mL   | 0.7501 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

Johnson FD, et al. Characterization of a small molecule inhibitor of disulfide reductases that induces oxidative stress and lethality in lung cancer cells. Cell Rep. 2022 ; 38(6):110343.

**Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins**

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