



LKT Laboratories, Inc.

RSL3

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Product Information

Product ID R734441

CAS No. 1219810-16-8

Chemical Name

Synonym

Formula $C_{23}H_{21}ClN_2O_5$

Formula Wt. 440.9

Melting Point

Purity $\geq 98\%$

Solubility

Store Temp $-20^{\circ}C$

Ship Temp Ambient

Description RSL3 ((1S,3R)-RSL3) is a potent covalent inhibitor of GPX4 (Glutathione Peroxidase 4) that alkylates the active-site selenocysteine (Sec46), irreversibly inactivating the enzyme and allowing uncontrolled accumulation of phospholipid hydroperoxides that drive ferroptosis. RSL3 was identified in a screen for compounds lethal to oncogenic KRAS-expressing cells and subsequently found to be a direct GPX4 inhibitor. It is the most widely used GPX4 inhibitor in ferroptosis research, alongside ML162, and serves as a defining pharmacological tool for this cell death pathway.

Pricing and Availability

Bulk quantities available upon request

Product ID	Size	List Price
R734441	5 mg	\$145.00
R734441	25 mg	\$485.00
R734441	100 mg	\$975.00

- References**
1. Yang WS, SriRamaratnam R, Welsch ME, et al. Regulation of ferroptotic cancer cell death by GPX4. Cell. 2014;156(1-2):317-31. PMID: 24439385.
 2. Dixon SJ, Lemberg KM, Lamprecht MR, et al. Ferroptosis: an iron-dependent form of nonapoptotic cell death. Cell. 2012;149(5):1060-72. PMID: 22632970.
 3. Stockwell BR, Friedmann Angeli JP, Bayir H, et al. Ferroptosis: A Regulated Cell Death Nexus Linking Metabolism, Redox Biology, and Disease. Cell. 2017;171(2):273-285. PMID: 28753430.
 4. Friedmann Angeli JP, Schneider M, Proneth B, et al. Inactivation of the ferroptosis regulator Gpx4 triggers acute renal failure in mice. Nat Cell Biol. 2014;16(12):1180-91. PMID: 25402683.
 5. Ursini F, Maiorino M. Lipid peroxidation and ferroptosis: The role of GSH and GPx4. Free Radic Biol Med. 2020;152:175-185. PMID: 32165316.

Caution: This product is intended for laboratory and research use only. It is not for human or drug use.