LKT Laboratories, Inc.

ML-162

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Product Information

Product ID M441001
CAS No. 1035072-16-2
Chemical Name

Synonym ML162

Formula $C_{23}H_{22}Cl_2N_2O_3S$
Formula Wt. 477.4
Melting Point
Purity ≥98%
Solubility

Pricing and Availability

Bulk quanitites available upon request

Product ID	Size	List Price
M441001	5 mg	$85.00
M441001	25 mg	$245.00
M441001	100 mg	$695.00

Store Temp -20°C
Ship Temp Ambient

Description ML162 is a covalent, chloroacetamide-based inhibitor of GPX4 (Glutathione Peroxidase 4), the phospholipid hydroperoxide-reducing enzyme that serves as a central checkpoint in ferroptosis. By irreversibly alkylating the active-site selenocysteine residue (Sec46) of GPX4, ML162 inactivates the enzyme and allows unchecked accumulation of lipid hydroperoxides, triggering ferroptotic cell death. ML162 is used alongside RSL3 as a benchmark GPX4 inhibitor tool in ferroptosis research.

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. Ursini F, Maiorino M. Lipid peroxidation and ferroptosis: The role of GSH and GPx4. Free Radic Biol Med. 2020;152:175-185. PMID: 32165316.

5. 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.