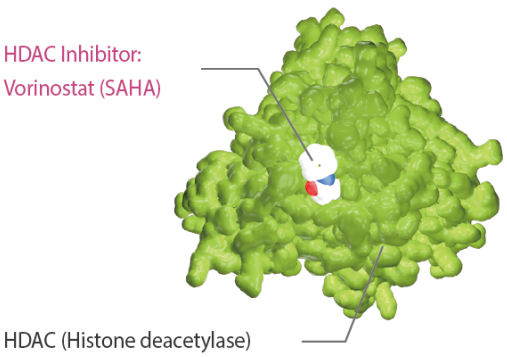
Ferroptosis



Ferroptosis is a non-apoptotic form of regulated cell death. It is distinct from other regulated cell death phenotypes, such as apoptosis and necroptosis. Ferroptosis is characterized by extensive lipid peroxidation, which can be suppressed by iron chelators or lipophilic antioxidants. Mechanistically, Ferroptosis inducers are divided into two classes: (1) inhibitors of cystine import via system x_c^- (e.g., Erastin), which subsequently causes depletion of glutathione (GSH), and (2) covalent inhibitors (e.g., (1S, 3R)-RSL3) of glutathione peroxidase 4 (GPX4). Since GPX4 reduces lipid hydroperoxides using GSH as a co-substrate, both compound classes ultimately result in loss of GPX4 activity, followed by elevated levels of lipid reactive oxygen species (ROS) and consequent cell death.

Ferroptosis is an iron- and ROS-dependent form of regulated cell death (RCD). Misregulated Ferroptosis has been implicated in multiple physiological and pathological processes, including cancer cell death, neurotoxicity, neurodegenerative diseases, acute renal failure, drug-induced hepatotoxicity, hepatic and heart ischemia/reperfusion injury, and T-cell immunity.

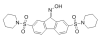
Ferroptosis Inhibitors & Modulators

CIL56

Cat. No.: HY-112063

Bioactivity: CIL56 is a potent and selective **ferroptosis** inducer. Ferroptosis is an iron-dependent form of regulated cell death (RCD).

Purity: 99.02%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

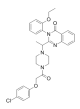


Erastin

Cat. No.: HY-15763

Bioactivity: Erastin is a **ferroptosis** activator.

Purity: 99.54%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO, 5 mg, 10 mg, 50 mg, 100 mg, 200 mg

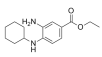


Ferrostatin-1

Cat. No.: HY-100579

Bioactivity: Ferrostatin-1 is a potent inhibitor of **ferroptosis** with an $\mathbf{EC_{50}}$ of 60 nM.

Purity: 99.72%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO, 5 mg, 10 mg, 25 mg, 50 mg

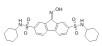


FIN56

Cat. No.: HY-103087

Bioactivity: FIN56 is a specific inducer of ferroptosis.

Purity: 98.03%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

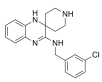


Liproxstatin-1

Cat. No.: HY-12726

Bioactivity: Liproxstatin-1 is a potent **ferroptosis** inhibitor, with $\mathbf{IC_{50}}$ of approximately 38 nM.

Purity: 98.38%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO, 2 mg, 5 mg, 10 mg, 50 mg, 100 mg



Piperazine Erastin

Cat. No.: HY-100887

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

Purity: 99.75%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO, 1 mg, 5 mg, 10 mg, 25 mg, 50 mg