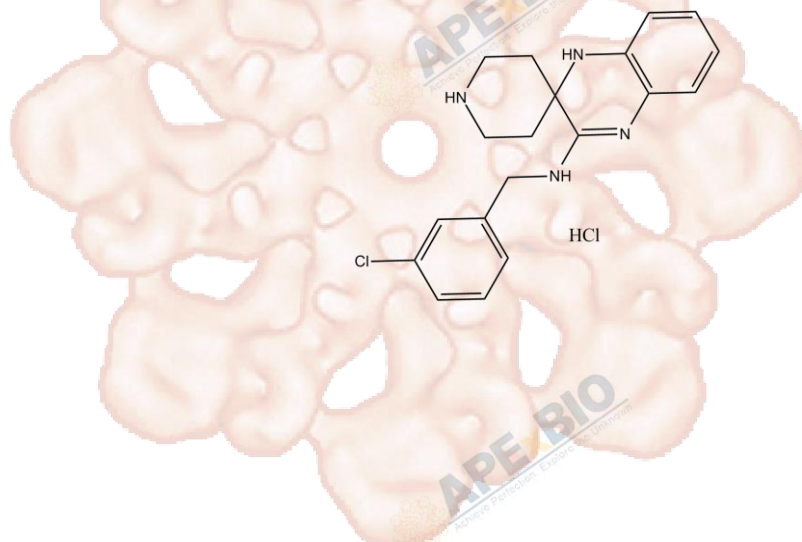


# Product Data Sheet

## Liproxstatin-1 HCl

<b>Cat. No.:</b>	B8221
<b>CAS No.:</b>	950455-15-9 (free base)
<b>Formula:</b>	C <sub>19</sub> H <sub>22</sub> Cl <sub>2</sub> N <sub>4</sub>
<b>M.Wt:</b>	377.31
<b>Synonyms:</b>	
<b>Target:</b>	Metabolism
<b>Pathway:</b>	Ferroptosis
<b>Storage:</b>	Store at -20°C



### Solvent & Solubility

insoluble in EtOH;  $\geq 18.85$  mg/mL in H<sub>2</sub>O;  $\geq 47.6$  mg/mL in DMSO

In Vitro

Preparing Stock Solutions	Solvent	Mass		
		1mg	5mg	10mg
	<b>Concentration</b>			
	<b>1 mM</b>	2.6503 mL	13.2517 mL	26.5034 mL
	<b>5 mM</b>	0.5301 mL	2.6503 mL	5.3007 mL
	<b>10 mM</b>	0.2650 mL	1.3252 mL	2.6503 mL

Please refer to the solubility information to select the appropriate solvent.

### Biological Activity

Shortsummary

A potent ferroptosis inhibitor

IC<sub>50</sub> & Target

In Vitro

#### Cell Viability Assay

Cell Line: Gpx4<sup>-/-</sup> cells

Preparation method: The solubility of this compound in DMSO is > 10.5 mg/mL. General tips for obtaining a higher concentration: Please warm the tube at 37 °C for 10 minutes and/or shake it in the ultrasonic bath for a while. Stock solution can be stored below - 20 °C for several months.

Reacting conditions: 72 hrs

	Applications:	Liproxstatin-1 HCl inhibited the growth of Gpx4 <sup>-/-</sup> cells with an IC <sub>50</sub> value of 22 nM. At the dose of 50 nM, Liproxstatin-1 HCl completely prevented lipid peroxidation. Liproxstatin-1 HCl (200 nM) dose-dependently protected Gpx4 <sup>-/-</sup> cells against ferroptosis-inducing agents, such as L-buthionine sulfoximine (10 μM), erastin (1 μM) and RSL3 (0.5 μM), whereas it failed to rescue cell death caused by staurosporine (0.2 μM) and H <sub>2</sub> O <sub>2</sub> (200 μM).
In Vivo	<b>Animal experiment</b>	
	Animal models:	GreERT2; Gpx4 <sup>fl/fl</sup> mice
	Dosage form:	10 mg/kg; i.p.
	Applications:	In GreERT2; Gpx4 <sup>fl/fl</sup> mice, Liproxstatin-1 HCl significantly extended the survival period. The TUNEL staining results after 9-day treatment showed a markedly reduced number of TUNEL <sup>+</sup> cells in the Liproxstatin-1 HCl treatment group than in the vehicle control group, indicating that Liproxstatin-1 HCl delayed ferroptosis in tubular cells.
	Other notes:	Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.

## Product Citations

See more customer validations on [www.apexbt.com](http://www.apexbt.com).

## References

[1]. 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): 1180-1191.

## Caution

**FOR RESEARCH PURPOSES ONLY.**

**NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.**

Specific storage and handling information for each product is indicated on the product datasheet. Most APEX<sup>®</sup>BIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Short-term storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.

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**APEx BIO Technology**

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