



Ferrostatin-1

Data Sheet

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|-----------------------------|--------------------------------------------------------------------|---------------------------|---------------------------------------------------------------|
| Catalog Number: | MC11096 | Product Type: | Small Molecule |
| Bio-Activity: | Ferroptosis inhibitor | CAS #: | 347174-05-4 |
| Research Categories: | Cell death, oxidative stress, cancer | Chemical Name: | Ethyl 3-amino-4-(cyclohexylamino)benzoate |
| Solubility: | Soluble in DMSO (up to 100 mg/ml) or in Ethanol (up to 100 mg/ml). | Molecular Formula: | C ₁₅ H ₂₂ N ₂ O ₂ |
| Purity: | > 98% | Molecular Weight: | 262.35 |
| Format: | Powder | Ship Temp: | Ambient |
| Storage: | Room Temperature | | |

Application Notes

Description/Data:

Inhibits ferroptosis (EC₅₀=60 nM), an iron-dependent form of nonapoptotic cell death [1]. Potent inhibitor of ferroptosis in cancer cells and glutamate-induced cell death in organotypic rat brain slices [1]. Blocks the cytotoxic effects of sorafenib in hepatocellular carcinoma cells [2]. Inhibits oxidative lipid damage and cell death in diverse disease models [3]. Prevents apoptosis of renal proximal tubular cells induced by reactive oxygen species [4].

References:

- 1) Dixon et al. (2012), Ferroptosis: an iron-dependent form of nonapoptotic cell death; Cell, 149 1060
- 2) Louandre et al. (2013), Iron-dependent cell death of hepatocellular carcinoma cells exposed to sorafenib; Int. J. Cancer, 133 1732
- 3) Skouta et al. (2014), Ferrostatins inhibit oxidative lipid damage and cell death in diverse disease models; J. Am. Chem. Soc., 136 4551
- 4) Nowak et al. (2013), Protein kinase C-α interaction with iHSP70 in mitochondria promotes recovery of mitochondrial function after injury in renal proximal tubular cells; Am. J. Physiol. Renal. Physiol., 305 F764

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