

Product Name: Ferrostatin 1

Catalog No.: 5180

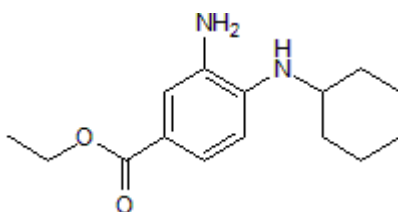
Batch No.: 1

CAS Number: 347174-05-4

IUPAC Name: Ethyl 3-amino-4-(cyclohexylamino)benzoate

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₅H₂₂N₂O₂
Batch Molecular Weight: 262.35
Physical Appearance: Brown solid
Solubility: DMSO to 100 mM
 ethanol to 100 mM
Storage: Store at +4°C
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.8% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	68.67	8.45	10.68
Found	68.4	8.64	10.5

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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Description:

Selective inhibitor of erastin induced ferroptosis (EC_{50} = 60 nM). Specifically inhibits Ras selective lethal compound - induced death, but not cell death induced by other oxidative lethal compounds and apoptosis-inducing agents. Inhibits ferroptosis in cancer cells; also inhibits glutamate-induced cell death in organotypic rat brain slices. Prevents erastin induced accumulation of cytosolic and lipid reactive oxygen species.

Physical and Chemical Properties:

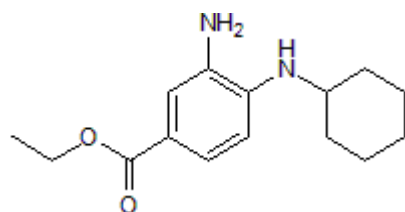
Batch Molecular Formula: $C_{15}H_{22}N_2O_2$

Batch Molecular Weight: 262.35

Physical Appearance: Brown solid

Minimum Purity: >98%

Batch Molecular Structure:



References:

Dixon et al (2012) Ferroptosis: an iron-dependent form of nonapoptotic cell death. *Cell* **149** 1060. PMID: 22632970.

Louandre et al (2013) Iron-dependent cell death of hepatocellular carcinoma cells exposed to sorafenib. *Int.J.Cancer* **133** 1732. PMID: 23505071.

Skouta et al (2014) Ferrostatins inhibit oxidative lipid damage and cell death in diverse disease models. *J.Am.Chem.Soc.* **136** 4551. PMID: 24592866.

Storage: Store at +4°C

Solubility & Usage Info:

DMSO to 100 mM

ethanol to 100 mM

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

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