

# Chlorido[N,N'-disalicylidene-1,2-phenylenediamine]iron(III) Biochemical

Chlorido[N,N'-disalicylidene-1,2-phenylenediamine]iron(III)

CATALOG #  
**AAA227349**

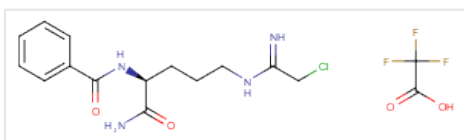
## PRODUCT SYNONYMS

Chlorido[N,N'-disalicylidene-1,2-phenylenediamine]iron(III); 2-phenylenediamine]iron(III) biochemical

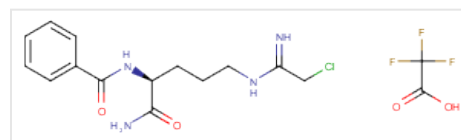
## PRODUCT SPECIFICATIONS

|                         |                                                                                                                                                                    |
|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Purity/Purification     | 98%                                                                                                                                                                |
| SMILES                  | [Cl-][Fe+3]123[N](C4=CC=CC=C4[N]2=CC5=CC=CC=C5[O-]3)=CC6=CC=CC=C6[O-]1                                                                                             |
| Formula                 | C20H14ClFeN2O2                                                                                                                                                     |
| CAS                     | 39916-28-4                                                                                                                                                         |
| Solubility              | DMSO: 14 mg/mL<br><br>PBS (pH 7.2): Partially Soluble<br><br>DMF: 20 mg/mL<br><br>Ethanol: 0.3mg/mL<br><1mg/ml refers to the product slightly soluble or insoluble |
| Preparation and Storage | Powder: -20 degree C for 3 years<br>In solvent: -80 degree C for 2 years                                                                                           |

## IMAGES



Structure  
Cl-amidine TFA, CAS 1043444-18-3



Structure  
Cl-amidine TFA, CAS 1043444-18-3

## ADDITIONAL INFORMATION

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| Related Product Information for Chlorido[N,N'-disalicylidene-1,2-phenylenediamine]iron(III) biochemical | Chlorido[N,N'-disalicylidene-1,2-phenylenediamine]iron(III) is an inducer of ferroptosis. <sup>1</sup> It induces ferroptosis, but not apoptosis or necroptosis, in NB1 cancer cells when used at a concentration of 3 uM. <sup>1</sup> Chlorido[N,N'-disalicylidene-1,2-phenylenediamine]iron(III) inhibits proliferation of BJAB, NALM-6, Jurkat, MelHO, and MCF-7 cancer cells (IC50s = 0.07, 2.5, 1.5, 3, and 5 uM, respectively), as well as NALM-6 cells resistant to daunorubicin and vincristine when used at concentrations ranging from 0.04 to 0.125 uM. <sup>2</sup> |
| Product Categories/Family for Chlorido[N,N'-disalicylidene-1,2-phenylenediamine]iron(III) biochemical   | Others                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

## References

1. Yuan Luo, et al. Inhibitors and Inactivators of Protein Arginine Deiminase 4: Functional and Structural Characterization. *Biochemistry*. 2006 Oct 3; 45(39): 11727-11736.
2. Chumanevich AA, et al. Suppression of colitis in mice by Cl-amidine: a novel peptidylarginine deiminase inhibitor. *Am J Physiol Gastrointest Liver Physiol*. 2011 Jun;300(6):G929-38.
3. Witalison EE, et al. Molecular targeting of protein arginine deiminases to suppress colitis and prevent colon cancer. *Oncotarget*. 2015 Nov 3;6(34):36053-62.
4. Biron BM, et al., Cl-Amidine Prevents Histone 3 Citrullination and Neutrophil Extracellular Trap Formation, and Improves Survival in a Murine Sepsis Model. *J Innate Immun*. 2017;9(1):22-32.

## NCBI AND UNIPROT INFORMATION

### Molecular Weight

424.81

**For Research Use Only.** Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/biochemical/chloridonn-disalicylidene-12-phenylenediamineiron-iii/227349>