

Product Name: Deferoxamine mesylate

Catalog No.: 5764

Batch No.: 3

CAS Number: 138-14-7

IUPAC Name: *N*⁴-[5-[[4-[[5-(Acetylhydroxyamino)pentyl]amino-1,4-dioxobutyl]hydroxyamino]pentyl]-*N*¹-(5-aminopentyl)-*N*¹-hydroxybutanediamide methanesulfonate

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₂₅H₄₈N₆O₈·CH₄O₃S

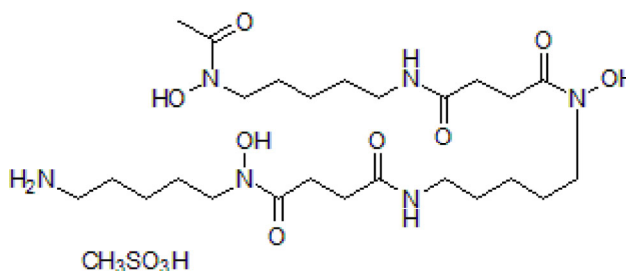
Batch Molecular Weight: 656.79

Physical Appearance: White solid

Solubility: water to 100 mM

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	47.55	7.98	12.8
Found	47.48	8	12.63

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

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Description:

Deferoxamine mesylate is an iron chelator. Also hypoxia mimetic and inhibitor of ferroptosis. Has neuroprotective effects in animal models of stroke, traumatic brain injury and neurodegenerative diseases.

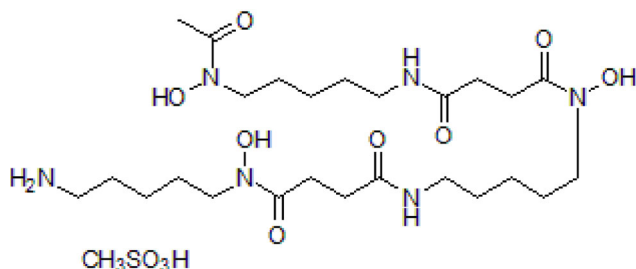
Physical and Chemical Properties:

Batch Molecular Formula: C₂₅H₄₈N₆O₈.CH₄O₃S

Batch Molecular Weight: 656.79

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Batch Molecular Structure:



Storage: Store at -20°C. This product is packaged under an inert atmosphere.

Solubility & Usage Info:

water 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. *Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

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.

References:

Kosyakovsky et al (2019) Quantifying intranasally administered deferoxamine in rat brain tissue with mass spectrometry. ACS Chem.Neurosci. **10** 4571. PMID: 31573798.

Chau et al (2005) Identification of novel small molecule inhibitors of hypoxia-inducible factor-1 that differentially block hypoxia-inducible factor-1 activity and hypoxia-inducible factor-1alpha induction in response to hypoxic stress and growth factors. Cancer Res. **65** 4918. PMID: 15930314.

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