

Product Name: DFMO

Catalog No.: 2761

Batch No.: 2

CAS Number: 68278-23-9

IUPAC Name: DL-2-(Difluoromethyl)-ornithine hydrochloride

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₆H₁₂F₂N₂O₂.HCl.¾H₂O

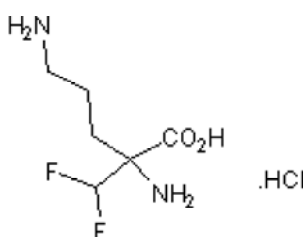
Batch Molecular Weight: 232.14

Physical Appearance: White solid

Solubility: water to 75 mM

Storage: Desiccate at RT

Batch Molecular Structure:



2. ANALYTICAL DATA

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	31.04	6.3	12.07
Found	30.93	6.4	11.86

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

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Description:

Irreversible inhibitor of ornithine decarboxylase (ODC) that inhibits polyamine biosynthesis. Displays antiapoptotic, antiangiogenic and antiparasitic activity. Induces re-expression of aberrantly silenced tumor suppressor genes when used in combination with oligoamine analogs.

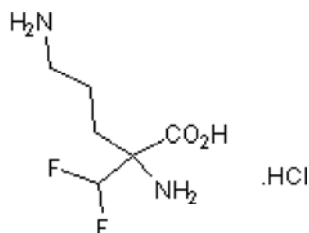
Physical and Chemical Properties:

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Batch Molecular Weight: 232.14

Physical Appearance: White solid

Batch Molecular Structure:



Storage: Desiccate at RT

Solubility & Usage Info:

water to 75 mM

CAUTION - This product is hygroscopic and we recommend that it is desiccated upon arrival.

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.

References:

Wu et al (2012) Oligoamine analogues in combination with 2-difluoromethylornithine synergistically induce re-expression of aberrantly silenced tumour-suppressor genes. *Biochem.J.* **442** 693. PMID: 22132744.

Raul (2007) Revival of 2-(difluoromethyl)ornithine (DFMO), an inhibitor of polyamine biosynthesis, as a cancer chemopreventative agent. *Biochem.Soc.Trans.* **35** 353. PMID: 17371277.

Carrillo et al (2000) Sensitivity of Trypanosomatid protozoa to DFMO and metabolic turnover of ornithine decarboxylase. *Biochem.Biophys.Res.Comm.* **279** 663.

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