

## 5-Fluoromethylornithine dihydrochloride

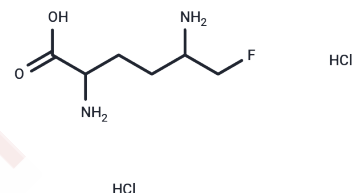
## Chemical Properties

CAS No. : 124796-41-4

Formula: C<sub>6</sub>H<sub>15</sub>Cl<sub>2</sub>FN<sub>2</sub>O<sub>2</sub>

Molecular Weight: 237.1

Storage: Store at low temperature, Keep away from direct sunlight  
 Powder: -20°C for 3 years | In solvent: -80°C for 1 year  
 Actual storage temperature shall be subject to the COA.



## Biological Description

Description	5-Fluoromethylornithine dihydrochloride (5-FMO <sub>rn</sub> dihydrochloride) is a selective inhibitor of L-Ornithine:2-oxoacid aminotransferase (OAT) and a specific inactivator of OAT, which can be used to study metabolic diseases and neurological diseases.
In vitro	Incubation for 1 h of L-ornithine carbamoyltransferase, ODC and GABA-T preparations with up to 10 mM 5-Fluoromethylornithine and subsequent determination of the residual enzyme activity demonstrated that none of these enzymes was inactivated. 5-Fluoromethylornithine is a poor substrate of ODC; at 10 mM 5-Fluoromethylornithine, 0.04 nmol of 1-fluoromethylputrescine was formed/h per mg of protein. [1]
In vivo	After intraperitoneal administration of 10 mg of 5-Fluoromethylornithine /kg, there is a rapid decrease of OAT activity in all organs, to a basal value. The time-dependence of the effect of 5-Fluoromethylornithine in brain. Minimum activity was usually observed between 2 and 24 h after 5-Fluoromethylornithine administration, thereafter OAT activity recovered gradually. [1]

## Solubility Information

Solubility	H <sub>2</sub> O: 80 mg/mL (337.41 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (8.44 mM), Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

### Preparing Stock Solutions

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	1mg	5mg	10mg
1 mM	4.2176 mL	21.0881 mL	42.1763 mL
5 mM	0.8435 mL	4.2176 mL	8.4353 mL
10 mM	0.4218 mL	2.1088 mL	4.2176 mL
50 mM	0.0844 mL	0.4218 mL	0.8435 mL

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Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

### Reference

Daune G, et al. 5-Fluoromethylornithine, an irreversible and specific inhibitor of L-ornithine:2-oxo-acid aminotransferase. *Biochem J.* 1988 Jul 15;253(2):481-8.

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