

## Aminoacetone hydrochloride

## Chemical Properties

CAS No. : 7737-17-9

Formula: C<sub>3</sub>H<sub>8</sub>ClNO

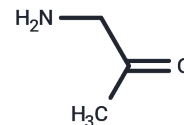
Molecular Weight: 109.56

Store under nitrogen

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.

HCl



## Biological Description

|               |  |
|---------------|--|
| Description   | Aminoacetone hydrochloride (1-Aminoacetone Hydrochloride) is an oxidant for ferritin and isolated mitochondria, inducing the loss of ferritin iron ring enzyme and iron uptake activity.   |
| Targets(IC50) | Monoamine Oxidase  |
| In vitro      | Aminoacetone hydrochloride (2.5-50 mM, 6 h) induces loss of ferritin iron oxidase and iron uptake activity. [1]<br>Aminoacetone hydrochloride treatment (at concentrations of 0.50-1.0 mM) enhances the antioxidant enzyme activity in RINm5f cells. [2] |

## Solubility Information

|            |   |
|------------|---|
| Solubility | PBS (pH 7.2): 8 mg/mL (73.02 mM),Sonication is recommended.<br>Ethanol: 8 mg/mL (73.02 mM),Sonication is recommended.<br>DMF: 8 mg/mL (73.02 mM),Sonication is recommended.<br>DMSO: 180 mg/mL (1642.94 mM),Sonication is recommended.<br>(< 1 mg/ml refers to the product slightly soluble or insoluble) |
|------------|---|

### Preparing Stock Solutions

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|       | 1mg       | 5mg        | 10mg       |
|-------|-----------|------------|------------|
| 1 mM  | 9.1274 mL | 45.6371 mL | 91.2742 mL |
| 5 mM  | 1.8255 mL | 9.1274 mL  | 18.2548 mL |
| 10 mM | 0.9127 mL | 4.5637 mL  | 9.1274 mL  |
| 50 mM | 0.1825 mL | 0.9127 mL  | 1.8255 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

Dutra F, et al. Aminoacetone induces loss of ferritin ferroxidase and iron uptake activities. *Free Radic Res.* 2003 Oct;37(10):1113-21.

Sartori A, et al. Aminoacetone, a putative endogenous source of methylglyoxal, causes oxidative stress and death to insulin-producing RINm5f cells. *Chem Res Toxicol.* 2008 Sep;21(9):1841-50.

Deng Y, Yu PH. Assessment of the deamination of aminoacetone, an endogenous substrate for semicarbazide-sensitive amine oxidase. *Anal Biochem.* 1999 May 15;270(1):97-102.

Hiraku Y, et al. Oxidative DNA damage induced by aminoacetone, an amino acid metabolite. *Arch Biochem Biophys.* 1999 May 1;365(1):62-70.

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