

## 3-Methyl-2-oxovaleric acid

## Chemical Properties

CAS No. : 1460-34-0

Formula: C<sub>6</sub>H<sub>10</sub>O<sub>3</sub>

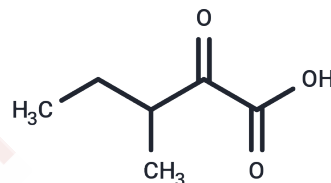
Molecular Weight: 130.14

Storage:

Keep away from direct sunlight, Keep away from moisture

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   | 3-Methyl-2-oxovaleric acid is an abnormal metabolite from the incomplete breakdown of branched-chain amino acids. It acts as a neurotoxin, acidogen, and metabotoxin, with the potential to cause nerve cell damage and various metabolic disturbances. |
| Targets(IC50) | Endogenous Metabolite   |

## Solubility Information

|                     |  |
|---------------------|--|
| Solubility          | DMSO: 250 mg/mL (1921.01 mM), Sonication is recommended.<br>(< 1 mg/ml refers to the product slightly soluble or insoluble)  |
| In vivo Formulation | 10% DMSO+40% PEG300+5% Tween 80+45% Saline: 4 mg/mL (30.74 mM), Sonication is recommended.<br><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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|       | <b>1mg</b> | <b>5mg</b> | <b>10mg</b> |
|-------|------------|------------|-------------|
| 1 mM  | 7.684 mL   | 38.4202 mL | 76.8403 mL  |
| 5 mM  | 1.5368 mL  | 7.684 mL   | 15.3681 mL  |
| 10 mM | 0.7684 mL  | 3.842 mL   | 7.684 mL    |
| 50 mM | 0.1537 mL  | 0.7684 mL  | 1.5368 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.

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