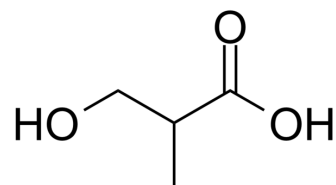


3-Hydroxyisobutyric acid

| | | | |
|--------------------|--|-------|----------|
| Cat. No.: | HY-113126 | | |
| CAS No.: | 2068-83-9 | | |
| Molecular Formula: | C ₄ H ₈ O ₃ | | |
| Molecular Weight: | 104.1 | | |
| Target: | Endogenous Metabolite | | |
| Pathway: | Metabolic Enzyme/Protease | | |
| Storage: | Pure form | -20°C | 3 years |
| | | 4°C | 2 years |
| | In solvent | -80°C | 6 months |
| | | -20°C | 1 month |



SOLVENT & SOLUBILITY

In Vitro

H₂O : 100 mg/mL (960.61 mM; Need ultrasonic)
 DMSO : 100 mg/mL (960.61 mM; Need ultrasonic)

| Preparing Stock Solutions | Solvent Concentration | Mass | | |
|---------------------------|-----------------------|-----------|------------|------------|
| | | 1 mg | 5 mg | 10 mg |
| | 1 mM | 9.6061 mL | 48.0307 mL | 96.0615 mL |
| | 5 mM | 1.9212 mL | 9.6061 mL | 19.2123 mL |
| | 10 mM | 0.9606 mL | 4.8031 mL | 9.6061 mL |

Please refer to the solubility information to select the appropriate solvent.

In Vivo

- Add each solvent one by one: PBS
Solubility: 25 mg/mL (240.15 mM); Clear solution; Need ultrasonic and warming
- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
Solubility: ≥ 2.5 mg/mL (24.02 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
Solubility: ≥ 2.5 mg/mL (24.02 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
Solubility: ≥ 2.5 mg/mL (24.02 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

3-Hydroxyisobutyric acid is an important interorgan metabolite, an intermediate in the pathways of l-valine and thymine and a good gluconeogenic substrate.

IC₅₀ & Target

Human Endogenous Metabolite

REFERENCES

[1]. Podebrad F, et al. Stereodifferentiation of 3-hydroxyisobutyric- and 3-aminoisobutyric acid in human urine by enantioselective multidimensional capillary gas chromatography-mass spectrometry. Clin Chim Acta. 2000 Feb 25;292(1-2):93-105.

Caution: Product has not been fully validated for medical applications. For research use only.

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