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Lieferung & Zahlungsart

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Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
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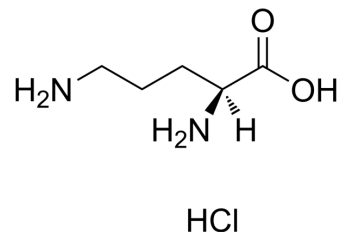
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L-Ornithine hydrochloride

| | |
|---------------------------|--|
| Cat. No.: | HY-W017018 |
| CAS No.: | 3184-13-2 |
| Molecular Formula: | C ₅ H ₁₃ ClN ₂ O ₂ |
| Molecular Weight: | 168.62 |
| Target: | Endogenous Metabolite |
| Pathway: | Metabolic Enzyme/Protease |
| Storage: | 4°C, sealed storage, away from moisture and light * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light) |



SOLVENT & SOLUBILITY

| | | | | | |
|---|---|--------------------------|--------------|------------|------------|
| In Vitro | H ₂ O : 50 mg/mL (296.52 mM; ultrasonic and warming and heat to 60°C) | | | | |
| | DMSO : < 1 mg/mL (ultrasonic) (insoluble or slightly soluble) | | | | |
| | | Solvent Concentration | Mass 1 mg | 5 mg | 10 mg |
| | Preparing Stock Solutions | 1 mM | 5.9305 mL | 29.6525 mL | 59.3050 mL |
| | 5 mM | 1.1861 mL | 5.9305 mL | 11.8610 mL | |
| | 10 mM | 0.5930 mL | 2.9652 mL | 5.9305 mL | |
| Please refer to the solubility information to select the appropriate solvent. | | | | | |
| In Vivo | 1. Add each solvent one by one: PBS Solubility: 100 mg/mL (593.05 mM); Clear solution; Need ultrasonic | | | | |

BIOLOGICAL ACTIVITY

| | | |
|-------------------------------------|--|-----------------------------|
| Description | L-Ornithine hydrochloride is a non-proteinogenic amino acid, is mainly used in urea cycle removing excess nitrogen in vivo. L-Ornithine hydrochloride shows nephroprotective ^{[1][2]} . | |
| IC₅₀ & Target | Microbial Metabolite | Human Endogenous Metabolite |
| In Vitro | L-Ornithine (0-10 mM) activates the CaSR in a concentration-dependent manner and exerts effects on Ca ²⁺ signaling in HK-2 cells ^[2] . L-Ornithine (10 mM) activates TRPC channels mediated Ca ²⁺ entry pathway in HK-2 cells ^[2] . L-Ornithine (100 or 300 μM; 24 h) shows the protection against ROS generation in HK-2 cells via ROCE pathway ^[2] . L-Ornithine (10 μM) can protect the ROS and oxidative damage in HK-2 cells exposed to H ₂ O ₂ ^[2] . MCE has not independently confirmed the accuracy of these methods. They are for reference only. | |

CUSTOMER VALIDATION

- Molecules. 2023 Apr 11, 28(8), 3375.
- ChemistrySelect. 2023 Jan 12.
- bioRxiv. 2023 Jun 3.

See more customer validations on www.MedChemExpress.com

REFERENCES

- [1]. Demura S, et al. Effect of L-ornithine hydrochloride ingestion on intermittent maximal anaerobic cycle ergometer performance and fatigue recovery after exercise. Eur J Appl Physiol. 2011 Nov;111(11):2837-43.
- [2]. Shin S, et al. L-ornithine activates Ca²⁺ signaling to exert its protective function on human proximal tubular cells. Cell Signal. 2020 Mar;67:109484.
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Caution: Product has not been fully validated for medical applications. For research use only.

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