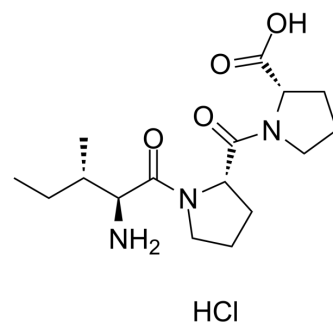


## H-Ile-Pro-Pro-OH hydrochloride

<b>Cat. No.:</b>	HY-114424A
<b>CAS No.:</b>	1208862-61-6
<b>Molecular Formula:</b>	C <sub>16</sub> H <sub>28</sub> ClN <sub>3</sub> O <sub>4</sub>
<b>Molecular Weight:</b>	361.86
<b>Target:</b>	Angiotensin-converting Enzyme (ACE)
<b>Pathway:</b>	Metabolic Enzyme/Protease
<b>Storage:</b>	Sealed storage, away from moisture and light
	Powder    -80°C    2 years
	-20°C    1 year



\* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light)

### SOLVENT & SOLUBILITY

#### In Vitro

H<sub>2</sub>O : 55 mg/mL (151.99 mM; Need ultrasonic)  
DMSO : 36.67 mg/mL (101.34 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	2.7635 mL	13.8175 mL	27.6350 mL
	5 mM	0.5527 mL	2.7635 mL	5.5270 mL
	10 mM	0.2763 mL	1.3817 mL	2.7635 mL

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

#### In Vivo

- Add each solvent one by one: PBS  
Solubility: 100 mg/mL (276.35 mM); Clear solution; Need ultrasonic
- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline  
Solubility: ≥ 2.75 mg/mL (7.60 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)  
Solubility: ≥ 2.75 mg/mL (7.60 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil  
Solubility: ≥ 2.75 mg/mL (7.60 mM); Clear solution

### BIOLOGICAL ACTIVITY

#### Description

H-Ile-Pro-Pro-OH hydrochloride, a milk-derived peptide<sup>[1]</sup>, inhibits angiotensin-converting enzyme (ACE)<sup>[1]</sup> with an IC<sub>50</sub> of 5 μM<sup>[2]</sup>. Antihypertensive tripeptides<sup>[1]</sup>.

<b>IC<sub>50</sub> &amp; Target</b>	IC50: 5 μM (ACE) <sup>[2]</sup>
<b>In Vitro</b>	Ile-Pro-Pro (IPP; 1 nM, 0.1 μM, and 10 μM) increases nitric oxide (NO) production in human umbilical vein endothelial cells (HUVECs) <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
<b>In Vivo</b>	Ile-Pro-Pro (IPP; 30 mg/kg per day; 0.3 g/L) attenuates arterial dysfunction in L-NAME-treated rats <sup>[1]</sup> Ile-Pro-Pro decreases blood pressure in spontaneously hypertensive rats (SHR) <sup>[1]</sup> . Ile-Pro-Pro attenuates the development of atherosclerosis in apolipoprotein E-deficient (apoE(-/-)) mice <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

## REFERENCES

- [1]. Nonaka A, et al. The milk-derived peptides Val-Pro-Pro and Ile-Pro-Pro attenuate arterial dysfunction in L-NAME-treated rats. *Hypertens Res.* 2014 Aug;37(8):703-7.
- [2]. Nakamura Y, et al. Purification and characterization of angiotensin I-converting enzyme inhibitors from sour milk. *J Dairy Sci.* 1995 Apr;78(4):777-83.

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

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