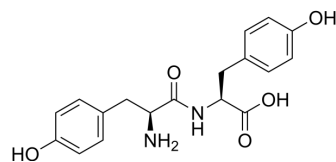


H-Tyr-Tyr-OH

Cat. No.:	HY-114782
CAS No.:	1050-28-8
Molecular Formula:	C ₁₈ H ₂₀ N ₂ O ₅
Molecular Weight:	344.36
Target:	Angiotensin-converting Enzyme (ACE)
Pathway:	Metabolic Enzyme/Protease
Storage:	4°C, protect from light, stored under nitrogen * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light, stored under nitrogen)



SOLVENT & SOLUBILITY

In Vitro	DMSO : 100 mg/mL (290.39 mM; Need ultrasonic)																					
	H ₂ O : 100 mg/mL (290.39 mM; Need ultrasonic)																					
	<table border="1"> <thead> <tr> <th rowspan="2">Solvent</th> <th rowspan="2">Mass</th> <th colspan="3">Concentration</th> </tr> <tr> <th>1 mg</th> <th>5 mg</th> <th>10 mg</th> </tr> </thead> <tbody> <tr> <td rowspan="3">Preparing Stock Solutions</td> <td>1 mM</td> <td>2.9039 mL</td> <td>14.5197 mL</td> <td>29.0394 mL</td> </tr> <tr> <td>5 mM</td> <td>0.5808 mL</td> <td>2.9039 mL</td> <td>5.8079 mL</td> </tr> <tr> <td>10 mM</td> <td>0.2904 mL</td> <td>1.4520 mL</td> <td>2.9039 mL</td> </tr> </tbody> </table>	Solvent	Mass	Concentration			1 mg	5 mg	10 mg	Preparing Stock Solutions	1 mM	2.9039 mL	14.5197 mL	29.0394 mL	5 mM	0.5808 mL	2.9039 mL	5.8079 mL	10 mM	0.2904 mL	1.4520 mL	2.9039 mL
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	Please refer to the solubility information to select the appropriate solvent.																					
In Vivo	<ol style="list-style-type: none"> Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.5 mg/mL (7.26 mM); Clear solution Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (7.26 mM); Clear solution Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (7.26 mM); Clear solution 																					

BIOLOGICAL ACTIVITY

Description	H-Tyr-Tyr-OH (L-Tyrosyl-L-tyrosine) is an antihypertensive peptide. H-Tyr-Tyr-OH inhibits angiotensin I-converting enzyme (ACE) with an IC ₅₀ value of 0.028 mg/mL. H-Tyr-Tyr-OH can be used for the research of high blood pressure ^{[1][2]} .
IC₅₀ & Target	IC ₅₀ : 0.028 mg/mL (ACE) ^[2]
In Vitro	H-Tyr-Tyr-OH shows inhibitory effect against ACE with an IC ₅₀ value of 0.028 mg/mL ^[2] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

H-Tyr-Tyr-OH (12.5 mg/kg; intraarterial injection once) effects systolic blood pressure in vivo^[1].
H-Tyr-Tyr-OH (0-100 mg/kg; i.p. once) effects blood pressure of spontaneously hypertensive rats^[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Anesthetized male SpragueDawley rats ^[1]
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Dosage:	12.5 mg/kg
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Administration:	Intraarterial injection; 12.5 mg/kg once
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Result:	Significantly elevated systolic blood pressure, with a peak increase of 5 min after administration.
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Animal Model:	Spontaneously hypertensive rats ^[1]
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Dosage:	0, 50 and 100 mg/kg
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Administration:	Intraperitoneal injection; once
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Result:	Significantly reduced blood pressure of spontaneously hypertensive rats, even at a dose of 50 mg/kg.
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REFERENCES

[1]. Maher TJ, et al. Use of parenteral dipeptides to increase serum tyrosine levels and to enhance catecholamine-mediated neurotransmission. J Pharm Sci. 1990 Aug;79(8):685-7.

[2]. Maruyama, et al. Purification and identification of angiotensin I-converting enzyme inhibitory peptides from Royal Jelly treated with protease. Nippon Shokuhin Kagaku Kogaku Kaishi. 2003.

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

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