Angiotensin III, human, mouse

Cat. No.: HY-P1540

CAS No.: 13602-53-4

Molecular Formula: $C_{46}H_{66}N_{12}O_9$

Molecular Weight: 931.09

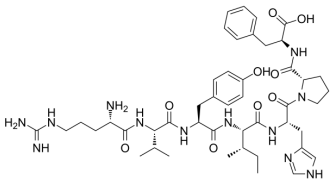
Sequence: Arg-Val-Tyr-Ile-His-Pro-Phe

Sequence Shortening: RVYIHPF

Target: Angiotensin Receptor

Pathway: GPCR/G Protein

Storage: Sealed storage, away from moisture
Powder -80°C 2 years
-20°C 1 year
* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



SOLVENT & SOLUBILITY

In Vitro

H_2O : 100 mg/mL (107.40 mM; Need ultrasonic)

Preparing Stock Solutions	Concentration / Solvent / Mass	1 mg	5 mg	10 mg
	1 mM	1.0740 mL	5.3700 mL	10.7401 mL
	5 mM	0.2148 mL	1.0740 mL	2.1480 mL
	10 mM	0.1074 mL	0.5370 mL	1.0740 mL

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

BIOLOGICAL ACTIVITY

Description

Angiotensin III, human, mouse is a heptapeptide, acts as an endogenous angiotensin type 2 receptor (AT_2R) agonist, with IC_{50}s of 0.648 nM and 21.1 nM for AT_2R and AT_1R, respectively.

IC_{50} & Target

IC50: 0.648 nM (AT_2R), 21.1 nM (AT_1R)[1]

In Vitro

Angiotensin III, human, mouse is a heptapeptide, acts as an endogenous angiotensin type 2 receptor (AT_2R) agonist, with IC_{50}s of 0.648 nM and 21.1 nM for AT_2R and AT_1R, respectively[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

Angiotensin III (7, 14 and 28 nmol/kg/min) increases urine sodium excretion ($U_{Na}V$), fractional excretion of sodium (FE_{Na}), and fractional excretion of lithium (FE_{Li}) in SD rat[2]. In RAS (renin-angiotensin system), Angiotensin III increases sympathetic nerve activity and vasopressin release and decreases the baroreflex leading to higher blood pressure in rats[3].

	MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Bosnyak S, et al. Relative affinity of angiotensin peptides and novel ligands at AT1 and AT2 receptors. Clin Sci (Lond). 2011 Oct;121(7):297-303.

[2]. Kemp BA, et al. Intrarenal angiotensin III is the predominant agonist for proximal tubule angiotensin type 2 receptors. Hypertension. 2012 Aug;60(2):387-95.

[3]. Gao J, et al. A new strategy for treating hypertension by blocking the activity of the brain renin-angiotensin system with aminopeptidase A inhibitors. Clin Sci (Lond). 2014 Aug;127(3):135-48.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA