Urotensin II, mouse acetate

Cat. No.: HY-P1483B

Molecular Formula: $C_{78}H_{104}N_{18}O_{21}S_2$

Molecular Weight: 1693.91

Target: Urotensin 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)

{pGlu}HGAAPECFWKYCI (Disulfide bridge: Cys_8-Cys_{13})

SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (59.04 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	0.5904 mL	2.9518 mL	5.9035 mL
	5 mM	0.1181 mL	0.5904 mL	1.1807 mL
	10 mM	0.0590 mL	0.2952 mL	0.5904 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.5 mg/mL (1.48 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (1.48 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Urotensin II, mouse acetate is an endogenous ligand for the orphan G-protein-coupled receptor GPR14 or SENR. Urotensin II, mouse acetate is a potent vasoconstrictor. Urotensin II, mouse acetate plays a physiological role in the central nervous system[1].

IC_{50} & Target

GPR14[1]

In Vivo

Urotensin II is a somatostatin-like cyclic peptide which functions as an arterial vasocontrictor, vasodilator, and bronchoconstriction mediator[1].
Urotensin II (0.1 nmol, 0.3 nmol, and 3 nmol; intracerebroventricular administration) induces anxiogenic-like behaviors in the elevated plus maze test and the hole-board test in mice in a dose-dependent manner[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Male C57BL/6N mice (8 weeks old)[1]
Dosage:	0.1 nmol, 0.3 nmol, and 3 nmol
Administration:	Intracerebroventricular (i.c.v.) administration
Result:	Decreased the amount of head dipping without significant alteration of the motor activity.

REFERENCES

[1]. Matsumoto Y, et al. Intracerebroventricular administration of urotensin II promotes anxiogenic-like behaviors in rodents. Neurosci Lett. 2004 Mar 25;358(2):99-102.

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