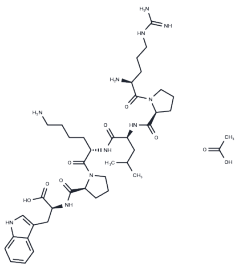
Data Sheet (Cat.No.T23077L)

TargetMol

Novokinin acetate

Chemical Properties



CAS No. :

Formula: C41H65N11O9

Molecular Weight: 856.02

Storage: Keep away from moisture
Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	Novokinin acetate exhibited an affinity for the AT2 receptor with Ki of 7 nM, and its antihypertensive and vasorelaxing activities were blocked by PD123319, an AT2 receptor antagonist.
Targets(IC50)	RAAS
In vitro	Novokinin relaxed a mesenteric artery isolated from the spontaneously hypertensive rat (SHR) at 10(-5) M, and reduced SHR blood pressure at a dose of 0.1 mg/kg (po.) emulsified in 30% egg yolk[1].
In vivo	The hypotensive effect of novokinin in normotensive mice was not observed in the AT2 receptor-knockout mice. Its antihypertensive and vasorelaxing activities in SHR were also blocked by CAY-10441, an antagonist of the IP receptor for prostaglandin I2 PGI2 suggesting that these activities are mediated by the AT2 receptor, followed by the prostaglandin I2-IP receptor pathway. Novokinin suppressed food intake after icv. or po. administration in mice. The anorexigenic activity was not observed in the AT2 receptor-knockout mice, but was observed in the AT 1 receptor-knockout mice. The anorexigenic activities of novokinin and angiotensin II were blocked by PD123319, and ONO-AE3-208, an antagonist of the EP4 receptor suggesting that the anorexigenic activities of the AT2 agonists are mediated by the PGE 2-EP4 receptor pathway downstream of the AT2 receptor. Novokinin given icv. in mice antagonized the antinociceptive effect of morphine[1].

Solubility Information

Solubility	DMSO: 13 mg/mL (15.19 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.1682 mL	5.841 mL	11.682 mL
5 mM	0.2336 mL	1.1682 mL	2.3364 mL
10 mM	0.1168 mL	0.5841 mL	1.1682 mL
50 mM	0.0234 mL	0.1168 mL	0.2336 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Masaaki Yoshikawa, et al. The pharmacological effects of novokinin; a designed peptide agonist of the angiotensin AT2 receptor. Curr Pharm Des. 2013;19(17):3009-12.