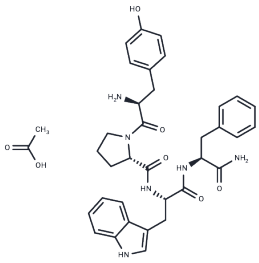
Data Sheet (Cat.No.T72423)

TargetMol

Endomorphin 1 acetate

Chemical Properties



CAS No. : 1276123-71-7

Formula: C36H42N6O7

Molecular Weight: 670.75

Storage: Keep away from moisture,Store at low temperature,
Keep away from direct sunlight
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	Endomorphin 1 acetate is a selective and highly effective μ-opioid receptor agonist with anti-nociceptive and analgesic effects. Endomorphin 1 acetate shows high affinity for kappa3 and can be used to study neurological diseases.
Targets(IC50)	Opioid Receptor
In vitro	Caco-2 cells were treated with various concentrations of Endomorphin 1 acetate. When cells were incubated with Endomorphin 1 acetate alone, no changes in basal IL-8 production were detected. However, treatment of Caco-2 cells with Endomorphin 1 acetate in the presence of IL-1β significantly increased IL-8 compared with cells treated with IL-1β alone. [1]
In vivo	Male Sprague Dawley rats (n=48) were randomly divided into four groups (n=12/group): i) Sham group, LAD ligation with no other intervention for 150 min; ii) IR group: LAD was ligated for 30 min (ischemia), and was reperfused for 120 min in vivo; iii) IPO group, after 30 min ischemia, three cycles of LAD clamping for 15 sec and declamping for 15 sec were performed before reperfusion; iv) EM50 group: Endomorphin 1 acetate (50 μg/kg) was administered intravenously following LAD ligation for 25 min, subsequently the LAD was reperfused for 120 min in vivo. In the IR, IPO and Endomorphin 1 acetate groups, LDH and CK-MB activities were significantly higher compared with the sham group. Compared with the IR group, LDH and CK-MB activities were significantly decreased in the IPO and Endomorphin 1 acetate groups. In the IR group, IL-6 and TNF-α levels were significantly increased compared with the sham group. Compared with the IR group, IL-6, and TNF-α levels were significantly decreased in the IPO and Endomorphin 1 acetate groups. [2]

Solubility Information

Solubility	DMSO: 100 mg/mL (149.09 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 4 mg/mL (5.96 mM),Sonication is recommended. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one.*

In vivo Formulation	*Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.4909 mL	7.4543 mL	14.9087 mL
5 mM	0.2982 mL	1.4909 mL	2.9817 mL
10 mM	0.1491 mL	0.7454 mL	1.4909 mL
50 mM	0.0298 mL	0.1491 mL	0.2982 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

Neudeck BL, et al. Endomorphin-1 alters interleukin-8 secretion in Caco-2 cells via a receptor mediated process. Immunol Lett. 2002 Dec 3;84(3):217-21.

Zhang WP, et al. Effects of endomorphin-1 postconditioning on myocardial ischemia/reperfusion injury and myocardial cell apoptosis in a rat model. Mol Med Rep. 2016 Oct;14(4):3992-8.