Data Sheet (Cat.No.T16738L)

RF9 acetate

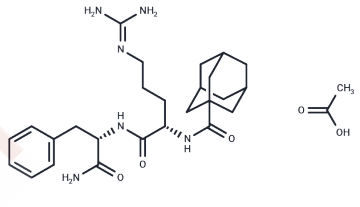
Chemical Properties

CAS No. :

Formula: C28H42N6O5

Molecular Weight: 542.67

Storage: 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	RF9 acetate is an effective and selective antagonist of Neuropeptide FF receptor with Ki values of 58 and 75 nM for hNPFF1R and hNPFF2R, respectively.
Targets(IC50)	Neuropeptide FF Receptor
In vitro	In Neuro 2A cells, Pretrement of RF9 acetate (10 μM) completely blocks NPFF induced neurite outgrowth[2].
In vivo	RF9 acetate (10 μg) infused alone does not result in a significant alteration of MAP or heart rate. Conversely, MAP and heart rate increases evoked by NPFF are significantly blocked When RF9 acetate is applied in conjunction with NPFF. RF9 acetate (0.1 mg/kg, s.c. min before 0.3 mg/kg heroin or saline on basal nociceptive threshold) with heroin coadministration prevents heroin-induced delayed hyperalgesia and tolerance[2].

Solubility Information

Solubility	DMSO: 55 mg/mL (101.35 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.8427 mL	9.2137 mL	18.4274 mL
5 mM	0.3685 mL	1.8427 mL	3.6855 mL
10 mM	0.1843 mL	0.9214 mL	1.8427 mL
50 mM	0.0369 mL	0.1843 mL	0.3685 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

Ting Zhang, et al. Discovery of Two Novel Branched Peptidomimetics Containing endomorphin-2 and RF9 Pharmacophores: Synthesis and Neuropharmacological Evaluation. Bioorg Med Chem. 2019 Feb 15;27(4):630-643.

Simonin F, et al. RF9, a potent and selective neuropeptide FF receptor antagonist, prevents opioid-induced tolerance associated with hyperalgesia. Proc Natl Acad Sci U S A. 2006 Jan 10;103(2):466-71.

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