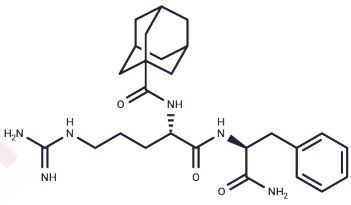
Data Sheet (Cat.No.T16738)

RF9

Chemical Properties



CAS No. :	876310-60-0
Formula:	C26H38N6O3
Molecular Weight:	482.62
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 is an effective and selective antagonist of the Neuropeptide FF receptor (Kis: 58±5 and 75±9 nM for hNPFF1R and hNPFF2R, respectively).
Targets(IC50)	Others,Neuropeptide Y Receptor
In vivo	RF9 (10 μg) infused alone does not result in a significant alteration of MAP or heart rate. When NPFF is applied in conjunction with RF9, MAP, and heart rate increases evoked by NPFF are significantly blocked. It is worthy to note that RF9 (30 nmol) significantly reduces the hypothermia induced by morphine (5 nmol) [1][2].

Solubility Information

Solubility	DMSO: 150 mg/mL (310.8 mM),Sonication and heating are recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween-80+45% Saline: 3.3 mg/mL (6.84 mM),Sonication is recommended. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. 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	2.072 mL	10.3601 mL	20.7202 mL
5 mM	0.4144 mL	2.072 mL	4.144 mL
10 mM	0.2072 mL	1.036 mL	2.072 mL
50 mM	0.0414 mL	0.2072 mL	0.4144 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

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.
Wang YQ, et al. Neuropeptide FF receptors antagonist, RF9, attenuates opioid-evoked hypothermia in mice. Peptides. 2008 Jul;29(7):1183-90.

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