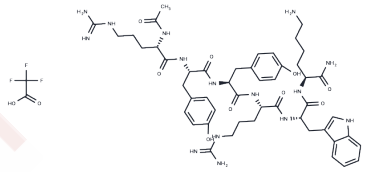
Data Sheet (Cat.No.T40510)

TargetMol

Ac-RYYRWK-NH2 TFA

Chemical Properties



CAS No. : 408305-09-9

Formula: C51H70F3N15O11

Molecular Weight: 1126.21

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	Ac-RYYRWK-NH2 is a highly effective and specific partial agonist for the nociceptin receptor (NOP). It demonstrates a remarkable affinity for rat cortical membranes ORL1, with [3H]Ac-RYYRWK-NH2 exhibiting a Kd value of 0.071 nM. However, it shows negligible affinity towards μ-, κ-, or δ-opioid receptors.
Targets(IC50)	Opioid Receptor
In vitro	Binding studies with [3H]ac-RYYRWK-NH2 on rat cortical membranes identified a single high-affinity binding site (Kd = 0.071 nM). Furthermore, Naloxone benzoylhydrazone competitively inhibited [3H]ac-RYYRWK-NH2 binding to rat cortical membranes (Ki = 104 nM) and to human ORL1 receptors (Ki = 136 nM). It also displaced [125I]Tyr14-NC-OH binding to ORL1 receptors with a Ki of 37 nM, indicating specificity as it showed no affinity for μ-, κ-, or δ-opioid receptors.

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	0.8879 mL	4.4397 mL	8.8793 mL
5 mM	0.1776 mL	0.8879 mL	1.7759 mL
10 mM	0.0888 mL	0.444 mL	0.8879 mL
50 mM	0.0178 mL	0.0888 mL	0.1776 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

C T Dooley, et al. Binding and in vitro activities of peptides with high affinity for the nociceptin/orphanin FQ receptor, ORL1.J Pharmacol Exp Ther. 1997 Nov;283(2):735-41.

M Ho, et al, Characterization of the ORL(1) receptor on adrenergic nerves in the rat anococcygeus muscle. Br J Pharmacol. 2000 Sep;131(2):349-55.

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