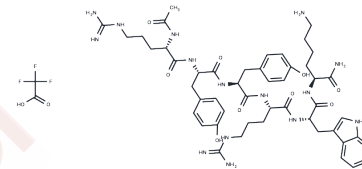


## Ac-RYYRWK-NH2 TFA

## Chemical Properties

|                   |   |
|-------------------|---|
| CAS No. :         | 408305-09-9   |
| Formula:          | C <sub>51</sub> H <sub>70</sub> F <sub>3</sub> N <sub>15</sub> O <sub>11</sub>  |
| Molecular Weight: | 1126.21   |
| Storage:          | Keep away from moisture<br>Powder: -20°C for 3 years   In solvent: -80°C for 1 year<br><small>Actual storage temperature shall be subject to the COA.</small> |



## 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 [ <sup>3</sup> H]Ac-RYYRWK-NH2 exhibiting a K <sub>d</sub> 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 [ <sup>3</sup> H]ac-RYYRWK-NH2 on rat cortical membranes identified a single high-affinity binding site (K <sub>d</sub> = 0.071 nM). Furthermore, Naloxone benzoylhydrazone competitively inhibited [ <sup>3</sup> H]ac-RYYRWK-NH2 binding to rat cortical membranes (K <sub>i</sub> = 104 nM) and to human ORL1 receptors (K <sub>i</sub> = 136 nM). It also displaced [ <sup>125</sup> I]Tyr14-NC-OH binding to ORL1 receptors with a K <sub>i</sub> 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.

**Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins**

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

Tel:781-999-4286 E\_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481