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产品名称: **2-ADAMANTANECARBONYL-ARG-PHE-NH<sub>2</sub>**  
产品别名: **RF9**

|                           |   |   |           |            |            |
|---------------------------|---|---|-----------|------------|------------|
| 生物活性:                     |   |   |           |            |            |
| Description               | RF9 is a potent and selective Neuropeptide FF receptor antagonist, with K <sub>s</sub> of 58±5 and 75±9 nM for hNPFF1R and hNPFF2R, respectively.   |   |           |            |            |
| IC <sub>50</sub> & Target | K <sub>i</sub> : 58±5 nM (hNPFF1R), 75±9 nM (hNPFF2R)[1]  |   |           |            |            |
| In Vivo                   | RF9 (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 NPFF is applied in conjunction with RF9[1]. It is worthy to note that RF9 (30 nmol) significantly reduces the hypothermia induced by morphine (5 nmol)[2].   |   |           |            |            |
| Solvent&Solubility        | <b>In Vitro:</b><br><b>DMSO : 150 mg/mL (310.80 mM; Need ultrasonic and warming)</b>  |   |           |            |            |
|                           | Preparing<br>Stock Solutions  | <div>Solvent / Mass / Concentration</div> | 1 mg      | 5 mg       | 10 mg      |
|                           |   | 1 mM                                      | 2.0720 mL | 10.3601 mL | 20.7202 mL |
|                           |   | 5 mM                                      | 0.4144 mL | 2.0720 mL  | 4.1440 mL  |
|                           |   | 10 mM                                     | 0.2072 mL | 1.0360 mL  | 2.0720 mL  |
|                           | *请根据产品在不同溶剂中的溶解度选择合适的溶剂配制储备液。一旦配成溶液，请分装保存，避免反复冻融造成的产品失效。<br>储备液的保存方式和期限: -80℃, 6 months; -20℃, 1 month。-80℃ 储存时，请在 6 个月内使用，-20℃ 储存时，请在 1 个月内使用。   |   |           |            |            |
| References                | [1]. 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.<br>[2]. Wang YQ, et al. Neuropeptide FF receptors antagonist, RF9, attenuates opioid-evoked hypothermia in mice. Peptides. 2008 Jul;29(7):1183-90.   |   |           |            |            |
| 实验参考:                     |   |   |           |            |            |
| Animal Administration     | Rats: Rats (n=5) are catheterized for measurement of arterial blood pressure and receive an in-dwelling cannula into the lateral cerebral ventricle. Arterial blood pressure and heart rate are continuously monitored. NPFF (10 µg in 10 µL of saline) is injected into the lateral ventricle over 15 to 20 sec. Control injections of saline (10 µL) are carried out in the same animals. Upon return of blood pressure to baseline, RF9 (10 µg) is injected i.c.v., followed by another i.c.v. injection of NPFF with RF9. After 1.5 h., another i.c.v. infusion of NPFF is repeated[1]. |   |           |            |            |
| References                | [1]. 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.<br>[2]. Wang YQ, et al. Neuropeptide FF receptors antagonist, RF9, attenuates opioid-evoked hypothermia in mice. Peptides. 2008 Jul;29(7):1183-90.   |   |           |            |            |