

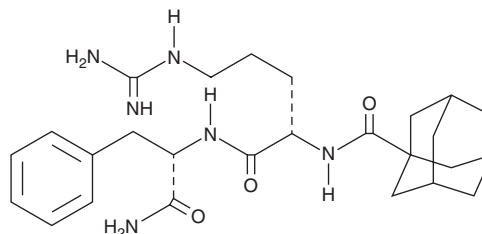
PRODUCT INFORMATION



RF9

Item No. 31412

CAS Registry No.: 876310-60-0
Formal Name: N²-(tricyclo[3.3.1.1^{3,7}]dec-1-ylcarbonyl)-L-arginyl-L-phenylalaninamide
MF: C₂₆H₃₈N₆O₃
FW: 482.6
Purity: ≥98%
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

RF9 is supplied as a solid. A stock solution may be made by dissolving the RF9 in the solvent of choice, which should be purged with an inert gas. RF9 is soluble in organic solvents such as DMSO. It is also soluble in water. The solubility of RF9 in DMSO and water is approximately 5 and 20 mg/ml, respectively. We do not recommend storing the aqueous solution for more than one day.

Description

RF9 is a neuropeptide FF (NPFF) receptor antagonist.¹ It binds to human NPFF1 and NPFF2 receptors with K_i values of 58 and 75 nM, respectively. It is selective for NPFF1 and NPFF2 receptors over neuropeptide Y (NPY) receptor Y₁, GPR10, GPR54, GPR103, ORL-1, and μ-, δ-, and κ-opioid receptors at 10 μM. RF9 (7.5 μM) inhibits NPFF-induced [³⁵S]GTPγS binding to the NPFF2 receptor. It reverses NPVF-induced inhibition of forskolin-stimulated cAMP accumulation in CHO cells expressing the human NPFF1 receptor (EC₅₀ = 4.7 μM). Intracerebroventricular administration of RF9 (10 μg) inhibits NPFF-induced increases in mean arterial pressure and heart rate in rats. It prevents heroin-induced delayed hyperalgesia and associated tolerance in rats when administered subcutaneously at a dose of 0.1 mg/kg.

Reference

1. Simonin, F., Schmitt, M., Laulin, J.-P., *et al.* RF9, a potent and selective neuropeptide FF receptor antagonist, prevents opioid-induced tolerance associated with hyperalgesia. *Proc. Natl. Acad. Sci. USA* **103**(2), 466-471 (2006).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 10/25/2022

CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897

[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM