PRODUCT INFORMATION

Neuropeptide γ (trifluoroacetate salt)

Item No. 43052

Formal Name: L-α-aspartyl-L-alanylglycyl-L-histidylglycyl-L-glutaminyl-L-isoleucyl-L-seryl-L-histidyl-L-lysyl-L-arginyl-L-histidyl-L-lysyl-L-threonyl-L-α-aspartyl-L-seryl-L-phenylalanyl-L-valylglycyl-L-leucyl-L-methioninamide, trifluoroacetate salt

Synonyms: γ-Neuropeptide, NPG, γ-PPT (72-92), γ-Preprotachykinin-1 (72-92)

Peptide Sequence: DAGHGQISHKRHKTDSFVGLM-NH_2

MF: $C_{99}H_{158}N_{34}O_{29}S \bullet XCF_3COOH$

FW: 2,320.6

Purity: ≥98%

Supplied as: A solid

Storage: -20°C

Stability: ≥4 years

H—Asp—Ala—Gly—His—Gly—Gln—Ile—Ser—His—Lys—
Arg—His—Lys—Thr—Asp—Ser—Phe—Val—Gly—Leu—
Met—NH_2
• XCF_3COOH

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

Laboratory Procedures

Neuropeptide γ (trifluoroacetate salt) is supplied as a solid. A stock solution may be made by dissolving the neuropeptide γ (trifluoroacetate salt) in the solvent of choice, which should be purged with an inert gas. Neuropeptide γ (trifluoroacetate salt) is soluble (≥10 mg/ml) in DMSO.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of neuropeptide γ (trifluoroacetate salt) can be prepared by directly dissolving the solid in aqueous buffers. Neuropeptide γ (trifluoroacetate salt) is soluble (≥10 mg/ml) in PBS (pH 7.2). We do not recommend storing the aqueous solution for more than one day.

Description

Neuropeptide γ is a peptide agonist of the neurokinin-2 (NK_2) receptor.[1] It induces phosphatidylinositol turnover in hamster urinary bladder preparations (EC_{50} = 7.1 nM) and smooth muscle contractions in isolated hamster bladder (EC_{50} = 112 nM). Neuropeptide γ selectively binds to NK_2 receptors over NK_1 and NK_3 receptors (IC_{50}s = 0.2, 3.16, and 50.1 nM, respectively). It induces salivation in rats in a dose-dependent manner.[2] Intrathecal administration of neuropeptide γ (0.078-78 nmol/animal) increases blood pressure and heart rate in conscious rats.[3]

References

1. van Giersbergen, P.L., Shatzer, S.A., Burcher, E., *et al.* Comparison of the effects of neuropeptide K and neuropeptide γ with neurokinin A at NK_2 receptors in the hamster urinary bladder. *Naunyn Schmiedebergs Arch. Pharmacol.* **345(1)**, 51-56 (1992).
2. Takeda, Y. and Krause, J.E. γ-Preprotachykinin-(72-92)-peptide amide potentiates substance P-induced salivation. *Eur. J. Pharmacol.* **161(2-3)**, 267-271 (1989).
3. Poulat, P., de Champlain, J., and Couture, R. Cardiovascular responses to intrathecal neuropeptide γ in conscious rats: Receptor characterization and mechanism of action. *Br. J. Pharmacol.* **117(2)**, 250-257 (1996).

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