

PRODUCT INFORMATION



Neurokinin B (trifluoroacetate salt)

Item No. 24542

Formal Name: L- α -aspartyl-L-methionyl-L-histidyl-L- α -aspartyl-L-phenylalanyl-L-phenylalanyl-L-valylglycyl-L-leucyl-L-methioninamide, 2,2,2-trifluoroacetate

Synonyms: Neurokinin β , Neuromedin K

MF: C₅₅H₇₉N₁₃O₁₄S₂ • XCF₃COOH

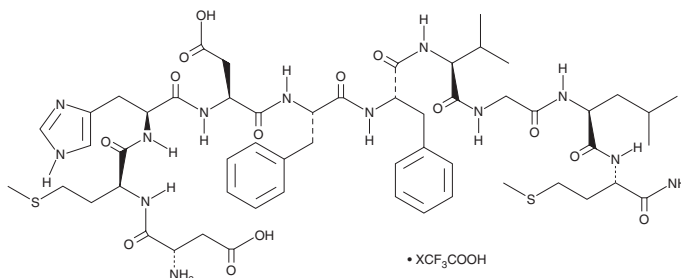
FW: 1,210.4

Purity: \geq 95%

Supplied as: A lyophilized powder

Storage: -20°C

Stability: \geq 4 years



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

Laboratory Procedures

Neurokinin B (trifluoroacetate salt) is supplied as a lyophilized powder. A stock solution may be made by dissolving the neurokinin B (trifluoroacetate salt) in the solvent of choice, which should be purged with an inert gas. Neurokinin B (trifluoroacetate salt) is soluble in the organic solvent formic acid at a concentration of approximately 1 mg/ml.

Description

Neurokinin B is a tachykinin peptide agonist of the neurokinin-3 receptor (NK₃; K_i = 0.8 nM).^{1,2} *In vitro*, neurokinin B dose-dependently induces calcium mobilization in HEK293 cells expressing NK₃ (EC₅₀ = 0.5 nM), an effect inhibited by NK₃ antagonists. Neurokinin B potentiates electrically-induced contractions in rat vas deferens and increases vasodilation in rat hind paw in a dose-dependent manner.¹ In juvenile male rhesus monkeys, neurokinin B (100 μ g, i.v.) stimulates luteinizing hormone (LH) release and acts within the hypothalamus, suggesting a role in initiating puberty.⁴

References

1. Holzer-Petsche, U., Schimek, E., Amann, R., et al. In vivo and in vitro actions of mammalian tachykinins. *Naunyn Schmiedebergs Arch. Pharmacol.* **330**(2), 130-135 (1985).
2. Sarau, H.M., Griswold, D.E., Potts, W., et al. Nonpeptide tachykinin receptor antagonists: I. Pharmacological and pharmacokinetic characterization of SB 223412, a novel, potent and selective neurokinin-3 receptor antagonist. *J. Pharmacol. Exp. Ther.* **281**(3), 1303-1311 (1997).
3. Ramaswamy, S., Seminara, S.B., Ali, B., et al. Neurokinin B stimulates GnRH release in the male monkey (*Macaca mulatta*) and is colocalized with kisspeptin in the arcuate nucleus. *Endocrinology* **151**(9), 4494-4503 (2010).

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, 10/06/2022

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