

PRODUCT INFORMATION



Neurotensin (8-13) (trifluoroacetate salt)

Item No. 24718

Formal Name: L-arginyl-L-arginyl-L-prolyl-L-tyrosyl-L-isoleucyl-L-leucine, trifluoroacetate salt
MF: $C_{38}H_{64}N_{12}O_8 \cdot XCF_3COOH$
FW: 817.0
Purity: $\geq 95\%$
Supplied as: A lyophilized powder
Storage: $-20^\circ C$
Stability: ≥ 4 years

$H-Arg-Arg-Pro-Tyr-Ile-Leu-OH$
 $\cdot XCF_3COOH$

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

Laboratory Procedures

Neurotensin (8-13) (trifluoroacetate salt) is supplied as a lyophilized powder. A stock solution may be made by dissolving the neurotensin (8-13) (trifluoroacetate salt) in water. The solubility of neurotensin (8-13) (trifluoroacetate salt) in water is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Neurotensin (8-13) is a neuropeptide that corresponds to the C-terminal residues 8-13 of neurotensin (Item No. 24717) that binds to rat synaptic membranes with a K_i value of 13 nM.¹ It induces contraction of guinea pig ileum ($EC_{50} = 25$ nM) and induces contraction of rat fundus equipotently to full length neurotensin ($EC_{50} = 1.29$ and 1.58 nM, respectively).^{1,2} *In vivo*, neurotensin (8-13) has antinociceptive effects in a mouse tail pressure test ($ED_{50} = 50$ nmol per animal).³ It induces extracellular dopamine release in the prefrontal cortex in rats.⁴ Neurotensin (8-13) also decreases diastolic blood pressure in a dose-dependent manner in normotensive rats without affecting heart rate.⁵

References

1. Granier, C., van Rietschoten, J., Kitabgi, P., *et al.* Synthesis and characterization of neurotensin analogues for structure/activity relationship studies. Acetyl-neurotensin(8--13) is the shortest analogue with full binding and pharmacological activities. *Eur. J. Biochem.* **124(1)**, 117-124 (1982).
2. Huidobro-Toro, J.P. and Kullak, A. Excitatory neurotensin receptors on the smooth muscle of the rat fundus: Possible implications in gastric motility. *Br. J. Pharmacol.* **84(4)**, 897-910 (1985).
3. Furuta, S., Kisara, K., Sakurada, S., *et al.* Structure-antinociceptive activity studies with neurotensin. *Br. J. Pharmacol.* **83(1)**, 43-48 (1984).
4. Sotty, F., Brun, P., Leonetti, M., *et al.* Comparative effects of neurotensin, neurotensin(8-13) and [D-Tyr¹¹] neurotensin applied into the ventral tegmental area on extracellular dopamine in the rat prefrontal cortex and nucleus accumbens. *Neuroscience* **98(3)**, 485-492 (2000).
5. Di Paola, E.D. and Richelson, E. Cardiovascular effects of neurotensin and some analogues on rats. *Eur. J. Pharmacol.* **175(3)**, 279-283 (1990).

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.

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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