PRODUCT INFORMATION

Neuromedin C (trifluoroacetate salt)

Item No. 24706

Formal Name:	7-L-histidine-5-14-bombesin, trifluoroacetate salt
Synonyms:	GRP(18-27), NMC
MF:	$C_{50}H_{73}N_{17}O_{11}S \bullet XCF_3COOH$
FW:	1,120.3
Purity:	≥95%
Supplied as:	A lyophilized powder
Storage:	-20°C
Stability:	≥4 years

H—Gly—Asn—His—Trp—Ala—Val—Gly—His—Leu—Met—NH_2
• XCF_3COOH

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

Laboratory Procedures

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

Description

Neuromedin C is a bombesin-like neuropeptide that stimulates uterine smooth muscle contraction and the release of gastrin (Item No. 24457), somatostatin, and amylase in rats.[1,2] Neuromedin C is a truncated form of gastrin-releasing peptide (GRP; Item Nos. 24415 | 24455) corresponding to the GRP amino acids 18-27. It inhibits GRP and bombesin (Item No. 24151) binding to rat pancreatic membranes (IC_{50}s = 0.4 and 2.2 nM, respectively), which can be reduced by sodium chloride and guanylyl imidodiphosphate (Item No. 16880).[2] Neuromedin C induces scratching and mast cell degranulation in mice when administered intradermally at doses ranging from 1 to 300 nmol/site, which is inhibited by the BB2 bombesin receptor agonist RC-3095 and reduced in mast cell-deficient mice.[3] Neuromedin C (3.2 nmol/kg, i.p.) reduces rat glucose consumption by approximately 50% for up to one hour.[4]

References

1. Madaus, S., Schusdziarra, V., Seufferlein, T., *et al.* Effect of gastrin-releasing peptide (GRP1-27), neuromedin-C (GRP18-27), and neuromedin-B on gastrin and somatostatin secretion from the rat stomach. *Z. Gastroenterol.* **27(9)**, 449-454 (1989).
2. Sekar, M.C., Uemura, N., Coy, D.H., *et al.* Bombesin, neuromedin B and neuromedin C interact with a common rat pancreatic phosphoinositide-coupled receptor, but are differentially regulated by guanine nucleotides. *Biochem J.* **280(Pt. 1)**, 163-169 (1991).
3. Andoh, T., Kuwazono, T., Lee, J.-B., *et al.* Gastrin-releasing peptide induces itch-related responses through mast cell degranulation in mice. *Peptides* **32(10)**, 2098-2103 (2011).
4. Ladenheim, E.E., Taylor, J.E., Coy, D.H., *et al.* Blockade of feeding inhibition by neuromedin B using a selective receptor antagonist. *Eur. J. Pharmacol.* **271(1)**, R7-R9 (1994).

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