

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:	$C_{50}H_{73}N_{17}O_{11}S \cdot XCF_3COOH$
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—NH₂

• XCF₃COOH

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 (IC₅₀s = 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).

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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