

PRODUCT INFORMATION



GRP (porcine) (trifluoroacetate salt)

Item No. 24455

Formal Name: L-alanyl-L-prolyl-L-valyl-L-seryl-L-valylglycylglycylglycyl-L-threonyl-L-valyl-L-leucyl-L-alanyl-L-lysyl-L-methionyl-L-tyrosyl-L-prolyl-L-arginylglycyl-L-asparaginy-L-histidyl-L-tryptophyl-L-alanyl-L-valylglycyl-L-histidyl-L-H-Ala-Pro-Val-Ser-Val-Gly-Gly-Gly-Thr-Val-Leu-Ala-Lys-Met-Tyr-Pro-Arg-Gly-Asn-His-Trp-Ala-Val-Gly-His-Leu-Met-NH₂

Synonym: Porcine gastrin-releasing Peptide 27

MF: C₁₂₆H₁₉₈N₃₈O₃₁S₂ • XCF₃COOH

FW: 2,805.3 • XCF₃COOH

Purity: ≥95%

Supplied as: A lyophilized powder

Storage: -20°C

Stability: ≥4 years

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

Laboratory Procedures

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

Description

Gastrin-releasing peptide (GRP) is a neuropeptide that stimulates gastrin release.¹ It binds to GRP receptors on St42 human gastric cancer cells with an IC₅₀ value of 0.35 nM.² GRP increases contractility of possum (*T. vulpecula*) gallbladder strips with an EC₅₀ value of 1.34 nM.³ *In vivo*, GRP increases gastrin (ED₅₀s = 0.70 and 0.47 nmol/kg² per hour for peak and integrated values, respectively) and pancreatic polypeptide release (ED₅₀s = 1.2 and 1.01 nmol/kg² per hour for peak and integrated values, respectively) in conscious cats.⁴ It also increases acid and pepsin secretion (ED₅₀s = 1.01 and 2.06 nmol/kg² per hour, respectively) and increases antral stomach motility in conscious cats. GRP (28 µg/kg) reduces independent *ad libitum* intake of sucrose and milk from bottles by rats but does not affect intraoral intake of either solution from catheters.⁵

References

1. McDonald, T.J., Jörnvall, H., Nissson, G., *et al.* Characterization of a gastrin releasing peptide from porcine non-antral gastric tissue. *Biochem. Biophys. Res. Commun.* **90**(1), 227-233 (1979).
2. Preston, S.R., Woodhouse, L.F., Gokhale, J., *et al.* Characterization of a bombesin/gastrin-releasing peptide receptor on a human gastric-cancer cell line. *Int. J. Cancer* **57**(5), 731-741 (1994).
3. Carbone, A., Schlothe, A.C., Harvey, J.R., *et al.* Gastrin-releasing peptide stimulates possum gallbladder contractility in vitro. *Peptides* **18**(7), 1067-1071 (1997).
4. Vagne, M., Collinet, M., Cuber, J.C., *et al.* Effect of porcine gastrin releasing peptide on gastric secretion and motility and the release of hormonal peptides in conscious cats. *Peptides* **8**(3), 423-430 (1987).
5. Rushing, P.A. and Houpt, T.A. Gastrin-releasing peptide suppresses independent but not intraoral intake. *Peptides* **20**(6), 737-741 (1999).

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, 12/17/2022

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