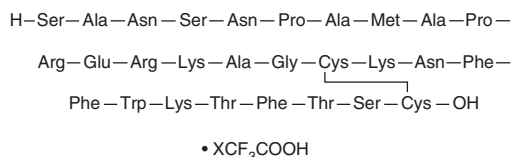


PRODUCT INFORMATION

Somatostatin-28 (human, mouse, rat, porcine, bovine, ovine) (trifluoroacetate salt)

Item No. 24991

MF: $C_{137}H_{207}N_{41}O_{39}S_3 \cdot XCF_3COOH$
FW: 3,148.6
Purity: $\geq 95\%$
Supplied as: A lyophilized powder
Storage: $-20^\circ C$
Stability: ≥ 4 years



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

Laboratory Procedures

Somatostatin-28 (trifluoroacetate salt) is supplied as a lyophilized powder. A stock solution may be made by dissolving the somatostatin-28 (trifluoroacetate salt) in the solvent of choice. Somatostatin-28 (trifluoroacetate salt) is soluble in the organic solvent formic acid, which should be purged with an inert gas, at a concentration of approximately 1 mg/ml.

Description

Somatostatin-28 is a cyclic neuropeptide hormone that has a role in endocrine regulation.¹ It is a somatostatin (SST) receptor agonist that binds to SST₁, SST₂, SST₃, SST₄, and SST₅ (IC₅₀s = 0.60, 0.12, 0.22, 0.83, and 0.41 nM, respectively, in CCL39 cells expressing human recombinant receptors).² It inhibits cAMP accumulation induced by forskolin (Item No. 11018) in CCL39 cells expressing human recombinant SST₁, SST₂, SST₃, SST₄, and SST₅ (EC₅₀s = 5.13, 1.91, 6.46, 2.95, and 3.55 nM, respectively).³ Somatostatin-28 stimulates growth hormone (GH) release from primary porcine pituitary cells when used at a concentration of 1 fM.⁴ It inhibits acid secretion induced by gastrin I (Item No. 24457) and IBMX (Item No. 13347) in isolated rat gastric mucosa (EC₅₀s = 27 and 252 nM, respectively).⁵ *In vivo*, somatostatin-28 dose-dependently increases basal and pentagastrin-induced gastric acid secretion in rats.⁶

References

1. Lucey, M.R. Endogenous somatostatin and the gut. *Gut* **27(4)**, 457-467 (1986).
2. Siehler, S., Seuwen, K., and Hoyer, D. Characterisation of human recombinant somatostatin receptors. 1. Radioligand binding studies. *Naunyn Schmiedebergs Arch. Pharmacol.* **360(5)**, 488-499 (1999).
3. Siehler, S. and Hoyer, D. Characterisation of human recombinant somatostatin receptors. 3. Modulation of adenylate cyclase activity. *Naunyn Schmiedebergs Arch. Pharmacol.* **360(5)**, 510-521 (1999).
4. Ramirez, J.L., Torronteras, R., Castaño, J.P., et al. Somatostatin plays a dual, stimulatory/inhibitory role in the control of growth hormone secretion by two somatotrope subpopulations from porcine pituitary. *J. Neuroendocrinol.* **9(11)**, 841-848 (1997).
5. Wyatt, M.A., Jarvie, E., Feniuk, W., et al. Somatostatin sst2 receptor-mediated inhibition of parietal cell function in rat isolated gastric mucosa. *Br. J. Pharmacol.* **119(5)**, 905-910 (1996).
6. Seefried, G., Schmidtler, J., and Schwille, P.O. Gastric secretion and gastrin under progressive doses of somatostatin-14 and -28 administered intraperitoneally to the rat. *Peptides* **9(2)**, 249-255 (1988).

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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