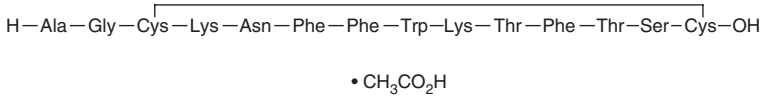
PRODUCT INFORMATION

Somatostatin-14 (human, mouse, rat, porcine, bovine, ovine) (acetate)

Item No. 20809

CAS Registry No.: 54472-66-1
Formal Name: somatostatin, monoacetate
MF: $C_{76}H_{104}N_{18}O_{19}S_2 \bullet C_2H_4O_2$
FW: 1,697.9
Purity: ≥98%
Supplied as: A 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

Somatostatin-14 (human, mouse, rat, porcine, bovine, ovine) (acetate) is supplied as a powder. A stock solution may be made by dissolving the somatostatin-14 (human, mouse, rat, porcine, bovine, ovine) (acetate) in water. The solubility of somatostatin-14 (human, mouse, rat, porcine, bovine, ovine) (acetate) in water is approximately 0.3 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Somatostatin-14 is a natural cyclic peptide hormone derived from the preprohormone, somatostatin.[1] It is a somatostatin (SST) receptor agonist that binds to SST_1, SST_2, SST_3, SST_4, and SST_5 (IC_{50}s = 0.22, 0.10, 0.28, 1.23, and 0.30 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 SST_1, SST_2, SST_3, SST_4, and SST_5 (EC_{50}s = 6.16, 4.37, 17.38, 2.95, and 4.67 nM, respectively).[3] Somatostatin-14 inhibits the release of growth hormone, prolactin, thyrotropin, glucagon, and insulin, as well as other signaling molecules.[1,4,5]

References

1. Hadjidakis, D.J., Raptis, S.A., Souvatzoglou, A., *et al.* Differences between somatostatin-28 and somatostatin-14 with respect to their biological effects in healthy humans and acromegalics. *Clin. Physiol. Biochem.* **4(6)**, 372-383 (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. Gillies, G. Somatostatin: The neuroendocrine story. *Trends Pharmacol. Sci.* **18(3)**, 87-95 (1997).
5. Joseph, I.M.P., Zavros, Y., Merchant, J.L., *et al.* A model for integrative study of human gastric acid secretion. *J. Appl. Physiol.* **94(4)**, 1602-1618 (2003).

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