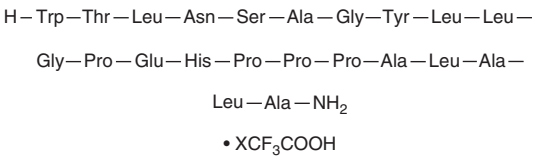
PRODUCT INFORMATION

M871 (trifluoroacetate salt)

Item No. 42403

Formal Name: L-tryptophyl-L-threonyl-L-leucyl-L-asparaginyl-L-seryl-L-alanylglycyl-L-tyrosyl-L-leucyl-L-leucylglycyl-L-prolyl-L-α-glutamyl-L-histidyl-L-prolyl-L-prolyl-L-prolyl-L-alanyl-L-leucyl-L-alanyl-L-leucyl-L-alaninamide, trifluoroacetate salt

Peptide Sequence: WXLNSAGYLLGPEHPPPALALA-NH_2 (X = ξ-threonine)



MF: $C_{108}H_{163}N_{27}O_{28} \bullet XCF_3COOH$

FW: 2,287.6

Purity: ≥95%

Supplied as: A solid

Storage: -20°C

Stability: ≥4 years

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

Laboratory Procedures

M871 (trifluoroacetate salt) is supplied as a solid. A stock solution may be made by dissolving the M871 (trifluoroacetate salt) in the solvent of choice, which should be purged with an inert gas. M871 (trifluoroacetate salt) is soluble (≥10 mg/ml) in DMSO and sparingly soluble (1-10 mg/ml) in ethanol.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of M871 (trifluoroacetate salt) can be prepared by directly dissolving the solid in aqueous buffers. M871 (trifluoroacetate salt) is sparingly soluble (1-10 mg/ml) in PBS (pH 7.2). We do not recommend storing the aqueous solution for more than one day.

Description

M871 is a peptide antagonist of galanin-2 (GAL_2) receptors (K_i = 13.1 nM).[1] It is selective for GAL_2 receptors over GAL_1 receptors (K_i = 420 nM). M871 (0.1, 1, or 10 nM) inhibits galanin-induced increases in inositol levels in CHO cells expressing human GAL_2 receptors. It increases blood glucose, IL-8, IL-6, IL-22, and Tnf-α levels and decreases skeletal muscle and adipocyte glucose transporter 4 (Glut4) and peroxisome proliferator-activated receptor-γ coactivator-1α (Pgc-1α) levels in a rat model of diabetes induced by a high-fat diet and streptozotocin (STZ; Item No. 13104) when administered intracerebroventricularly.[2]

References

1. Sollenberg, U., Lundström, L., Bartfai, T., *et al.* M871—a novel peptide antagonist selectively recognizing the galanin receptor type 2. *Int. J. Pept. Res. Ther.* **12,** 115–119 (2006).
2. Fang, P., He, B., Yu, M., *et al.* Central galanin receptor 2 mediates galanin action to promote systemic glucose metabolism of type 2 diabetic rats. *Biochem. Pharmacol.* **156,** 241-247 (2018).

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