PRODUCT INFORMATION

BAY 55-9837 (trifluoroacetate salt)

Item No. 36752

Formal Name: L-histidyl-L-seryl-L-α-aspartyl-L-alanyl-L-valyl-L-phenylalanyl-L-threonyl-L-α-aspartyl-L-asparaginyl-L-tyrosyl-L-threonyl-L-arginyl-L-leucyl-L-arginyl-L-lysyl-L-glutaminyl-L-valyl-L-alanyl-L-alanyl-L-lysyl-L-lysyl-L-tyrosyl-L-leucyl-L-glutaminyl-L-seryl-L-isoleucyl-L-lysyl-L-asparaginyl-L-lysyl-L-arginyl-L-tyrosinamide, trifluoroacetate salt

Peptide Sequence: HSDAVFTDNYTRLRKQVAAKKYLQSIKNKRY-NH_2

MF: $C_{167}H_{270}N_{52}O_{46} \bullet XCF_3COOH$

FW: 3,742.3

Purity: ≥98%

Supplied as: A solid

Storage: -20°C

Stability: ≥4 years

H–His—Ser—Asp—Ala—Val—Phe—Thr—Asp—Asn—Tyr—
Thr—Arg—Leu—Arg—Lys—Gln—Val—Ala—Ala—Lys—
Lys—Tyr—Leu—Gln—Ser—Ile—Lys—Asn—Lys—Arg—
Tyr—NH_2
• XCF_3COOH

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

Laboratory Procedures

BAY 55-9837 (trifluoroacetate salt) is supplied as a solid. A stock solution may be made by dissolving the BAY 55-9837 (trifluoroacetate salt) in the solvent of choice, which should be purged with an inert gas. BAY 55-9837 (trifluoroacetate salt) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of BAY 55-9837 in these solvents is approximately 10, 30, and 20 mg/ml, respectively.

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 BAY 55-9837 can be prepared by directly dissolving the solid in aqueous buffers. The solubility of BAY 55-9837 in PBS (pH 7.2) is approximately 5 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

BAY 55-9837 is a peptide vasoactive intestinal polypeptide receptor 2 ($VPAC_2$) agonist.[1] It binds to $VPAC_2$ (K_d = 65 nM) and selectively induces cAMP production in CHO cells expressing human $VPAC_2$ over $VPAC_1$ or the PACAP type I (PAC_1) receptor (EC_{50}s = 0.4, 100, and >1,000 nM, respectively). BAY 55-9837 (100 nM) increases glucose-dependent insulin secretion in isolated rat and human pancreatic islets. *In vivo*, BAY 55-9837 enhances glucose-induced insulin secretion in fasted rats (ED_{50} = ~3 pmol/kg).

Reference

1. Tsutsumi, M., Claus, T.H., Liang, Y., *et al.* A potent and highly selective VPAC2 agonist enhances glucose-induced insulin release and glucose disposal: A potential therapy for type 2 diabetes. *Diabetes* **51(5)**, 1453-1460 (2002).

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