

Product Data Sheet

Product Name: Setmelanotide (trifluoroacetate salt)

Cat. No.: GC49881

Chemical Properties

Cas. No.

SMILES O=C([C@@H](NC([C@H](NC([C@@H](NC([C@H](NC([C@H](CSSC[C@H](NC1=O)C(N)=O)NC([C@@H](NC(C)=O)CCCNC(N)=N)=O)=O)C)=O)CC2=CN=CN2)=O)CC3=C(C=CC=C3)=O)CCCNC(N)=N)N[C@H]1CC4=CNC5=CC=CC=C45.OC(C(F)(F)F)=O

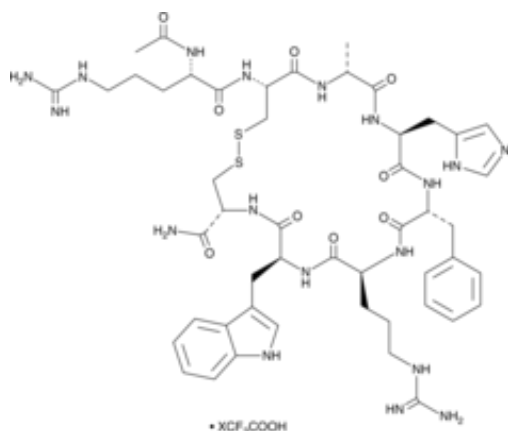
Formula C₄₉H₆₈N₁₈O₉S₂ • XCF₃COOH M.Wt 1117.3

Solubility Water: soluble Storage -20°C

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT, or blue ice upon request.

Structure



Background

Setmelanotide is a cyclic peptide agonist of melanocortin receptor 4 (MC4R).¹ It increases cAMP production in CHO-K1 cells expressing MC4R, MC1R, MC3R, and MC5R (EC₅₀s = 0.27, 5.8, 5.3, and 1,600 nM, respectively, for the human receptors) but not in cells expressing MC2R (EC₅₀ = >10

Caution: Product has not been fully validated for medical applications. For research use only.

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μM). Setmelanotide (6.4 μmol/animal) inhibits food intake in MC3R, but not MC4R, knockout mice. It also reduces food intake and hepatosteatosis, induces weight loss, and decreases serum insulin, glucose, and leptin levels in a mouse model of diet-induced obesity when administered at a dose of 300 nmol/kg per day. Formulations containing setmelanotide have been used in chronic weight management due to proopiomelanocortin (POMC), proprotein convertase subtilisin/kexin type 1 (PCSK1), or leptin receptor deficiency.

1.Kumar, K.G., Sutton, G.M., Dong, J.Z., et al.Analysis of the therapeutic functions of novel melanocortin receptor agonists in MC3R- and MC4R-deficient C57BL/6J micePeptides30(10)1892-1900(2009)

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