

Product Data Sheet

Product Name: Dermorphin (acetate)

Cat. No.: GC47188

Chemical Properties

Cas. No. N/A

SMILES OC(C=C1)=CC=C1C[C@H](NC(CNC([C@@H](NC([C@@H](C)NC([C@@H](N)CC2=CC=CC(C=C2)O)=O)=O)CC3=CC=CC=C3)=O)=O)C(N4[C@H](C(N[C@@H](CO)C(N)=O)=O)CCC4)=O.CC(O)=O

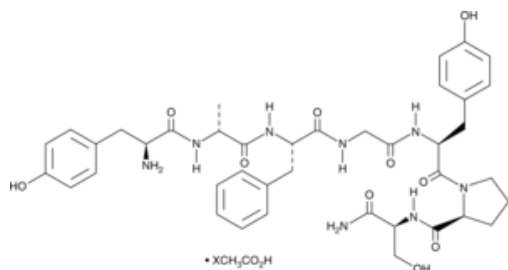
Formula C₄₀H₅₀N₈O₁₀.XC₂H₄O₂ M.Wt 802.9

Solubility DMF: 30 mg/ml, DMSO: 30 mg/ml, Ethanol: 30 mg/ml, PBS (pH 7.2): 10 mg/ml
Storage Store at -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

Dermorphin is an opioid peptide originally isolated from the skin of South American frogs (*Ph. sauvagai*).¹ It binds to μ -opioid receptors ($K_i = 0.54$ nM) and is selective for μ - over δ -opioid receptors in radioligand binding assays ($K_i = 929$ nM). *In vivo*, dermorphin (1.9 μ mol/kg, i.p.) inhibits noxious stimuli-induced neuronal firing in the nucleus lateralis anterior and ventrobasal complex in rats.² It inhibits the electrical stimulation-induced C fiber response in rat dorsal horn nociceptive neurons. Dermorphin (10-120 pmol/animal, i.c.v.) delays gastric emptying, inhibits gastric acid secretion, and

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

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slows colonic motility in pylorus-ligated rats.

1. Usenko, A.B., Emel'yanova, T.G., and Mlasoedov, N.F. Dermorphins are natural opioids with an unique primary structure that determines their biological specificity *Biol. Bull. Russ. Acad. Sci.* 29154-164(2002)
2. Melchiorri, P., and Negri, L. The dermorphin peptide family *Gen. Pharmacol.* 27(7)1099-1107(1996)

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