Product Data Sheet

Product Name: ACTH (7-38) (human) (trifluoroacetate salt)
Cat. No.: GC92123

Chemical Properties

Cas. No.			
Chemical Name	31-L-serine-α7-38-corticotropin (swine), trifluoroacetate salt		
SMILES	O=C(N[C@@H](CCC/N=C(N[H])/N)C(N[C@@H](CC1=CN([H])C2=C1C=CC=C2)C(NCC(N[C@@H](CCCCN[H])C(N3CCC[C@H]3C(N[C@@H](C(C)C)C(NCC(N[C@@H](CCCCN[H])C(N[C@@H](CCCCN[H])C(N[C@@H](CCC/N=C(N[H])/N)C(N[C@@H](CCC/N=C(N[H])/N)C(N4CCC[C@H]4C(N[C@@H](C(C)C)C(N[C@@H](CCCCN[H])C(N[C@@H](C(C)C)C(N[C@@H](CC5=CC=C(O[H])C=C5)C(N6CCC[C@H]6C(N[C@@H](CC(N[H])=O)C(NCC(N[C@H](C(N[C@@H](CCC(O)=O)C(N[C@@H](CC(O)=O)C(N[C@@H](CCC(O)=O)C(N[C@@H](CO[H])C(N[C@H](C(N[C@@H](CCC(O)=O)C(N[C@H](C(N[C@H](C(N7CCC[C@H]7C(N[C@H](C(N[C@@H](CCC(O)=O)C(O)=O)=O)CC(C)C)=O)=O)CC8=CC=CC=C8)=O)C)=O)=O)C)=O)=O)=O)=O)=O)C)=O)=O)=O)=O)=O)=O)=O)=O)=O)=O)=O)=O)=O)=O)=O)=O)=O)=O)[C@@H](N[H])CC9=CC=CC=C9.O=C(O)C(F)(F)F		
Formula	$C_{167}H_{257}N_{47}O_{46}$? XCF_3COOH	M.Wt	3659.2
Solubility	DMSO: Soluble: ≥10 mg/ml,PBS (pH 7.2): Soluble: ≥10 mg/ml	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

H—Phe—Arg—Trp—Gly—Lys—Pro—Val—Gly—Lys—Lys—
Arg—Arg—Pro—Val—Lys—Val—Tyr—Pro—Asn—Gly—
Ala—Glu—Asp—Glu—Ser—Ala—Glu—Ala—Phe—Pro—
Leu—Glu—OH
• XCF_3COOH

Background

Product Data Sheet

Adrenocorticotropic hormone (ACTH) (7-38) is a peptide fragment of ACTH and an antagonist of melanocortin receptor 2 (MC2R), also known as the ACTH receptor.[1] It inhibits ACTH-induced corticosterone production in isolated rat adrenal cells when used at concentrations of 0.455 or 4.55 ?M. ACTH (7-38) also inhibits angiotensin-converting enzyme 1 (ACE1; IC_{50} = 750 nM for the dog enzyme).[2] It inhibits basal cAMP secretion by isolated rat inner adrenocortical cells when used at a concentration of 1 ?M.[3] ACTH (7-38) induces hypotension in normotensive dogs (ED_{50} = 0.109 nmol/kg).[4]

References:

[1]. Li, C.H., Chung, D., Yamashiro, D., et al.Isolation, characterization, and synthesis of a corticotropin-inhibiting peptide from human pituitary glandsProc. Natl. Acad. Sci. U.S.A.75(9)4306-4309(1978).
[2]. Verma, P.S., Miller, R.L., Taylor, R.E., et al.Inhibition of canine lung angiotensin converting enzyme by ACTH and structurally related peptidesBiochem. Biophys. Res. Commun.104(4)1484-1488(1982).
[3]. Mazzocchi, G., Rebuffat, P., Gottardo, L., et al.Vasoactive intestinal peptide stimulates rat adrenal glucocorticoid secretion, through an ACTH receptor-dependent activation of the adenylate cyclase signaling pathwayHorm. Metab. Res.30(5)241-243(1998).
[4]. Tenner, T.E., Jr., Yang, C.M., Chang, J.K., et al.Pharmacological comparison of bPTH-(1-34) and other hypotensive peptides in the dogPeptides1(4)285-288(1980).

Caution: Product has not been fully validated for medical applications. For research use only.
Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com
Address: 10292 Central Ave. #205, Montclair, CA, USA