

Product Data Sheet

Product Name: GLP-1 (7-36) acid (human, mouse, rat, porcine, bovine)

Cat. No.: GC92119

Chemical Properties

Cas. No.

Chemical Name L-histidyl-L-alanyl-L- α -glutamylglycyl-L-threonyl-L-phenylalanyl-L-threonyl-L-seryl-L- α -aspartyl-L-valyl-L-seryl-L-seryl-L-tyrosyl-L-leucyl-L- α -glutamylglycyl-L-glutaminyl-L-alanyl-L-alanyl-L-lysyl-L- α -glutamyl-L-phenylalanyl-L-isoleucyl-L-alanyl-L-tryptophyl-L-leucyl-L-valyl-L-lysylglycyl-L-arginine, monoacetate

SMILES OC(CC[C@H](NC([C@@H](NC([C@H](CC1=CN(C=N1)[H])N[H])=O)C)=O)C(NCC(N[C@@H]([H])([C@@H](C)O[H])C(N[C@H](C(N[C@@H]([H])([C@@H](C)O[H])C(N[C@@H](CO[H])C(N[C@@H](CC(O)=O)C(N[C@@H](C(C)C)C(N[C@@H](CO[H])C(N[C@@H](CO[H])C(N[C@@H](CC(C=C2)=CC=C2O[H])C(N[C@H](C(N[C@@H](CCC(O)=O)C(NCC(N[C@@H](CCC(N[H])=O)C(N[C@H](C(N[C@H](C(N[C@@H](CCCCN[H])C(N[C@@H](CCC(O)=O)C(N[C@H](C(N[C@@H](C(N[C@@H](CC3=CN([H])C4=C3C=CC=C4)C(N[C@H](C(N[C@@H](C(C)C)C(N[C@@H](CCCCN[H])C(NCC(N[C@@H](CCC/N=C(N)N[H])C(O)=O)=O)=O)=O)CC(C)C)=O)=O)C)=O)([H])[C@H](CC)C)=O)CC5=CC=CC=C5)=O)=O)=O)C)=O)=O)=O)=O)C(C)C)=O)=O)=O)=O)=O)CC6=CC=CC=C6)=O)=O)=O)=O)CC(O)=O

Formula $C_{149}H_{225}N_{39}O_{46} \cdot C_2H_4O_2$ M.Wt 3358.7

Solubility DMSO: Sparingly soluble: 1-10 mg/ml, PBS (pH 7.2): Slightly soluble: 0.1-1 mg/ml Storage $-20^{\circ}C$

General tips For obtaining a higher solubility, please warm the tube at $37^{\circ}C$ and shake it in the ultrasonic bath for a while. Stock solution can be stored below $-20^{\circ}C$ 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-His-Ala-Glu-Gly-Thr-Phe-Thr-Ser-Asp-Val-Ser-Ser-Tyr-Leu-Glu-Gly-Gln-Ala-Ala-Lys-Glu-Phe-Ile-Ala-Trp-Leu-Val-Lys-Gly-Arg-OH
 $\cdot CH_3CO_2H$

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

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Background

Glucagon-like peptide 1 (GLP-1) (7-36) acid is a derivative of the hormone and GLP-1 receptor (GLP-1R) agonist GLP-1 (7-36) amide.^{1,2} It enhances insulin-induced phosphorylation of Akt in 3T3-L1 adipocytes when used at a concentration of 100 nM in the presence of a dipeptidyl peptidase 4 (DPP-4) inhibitor.² GLP-1 (7-36) acid (150 µg/kg) reduces plasma levels of total cholesterol, triglycerides, free fatty acids, LDL, insulin, and leptin, as well as adipose tissue weight, in a mouse model of obesity induced by a high-fat diet. It decreases blood glucose levels, food intake, and gastric emptying in non-obese and *ob/ob* mice when administered at a dose of 3 mg/kg.¹

References:

- [1]. Fang, X., Du, Z., Duan, C., et al. Beinaaglutide shows significantly beneficial effects in diabetes/obesity-induced nonalcoholic steatohepatitis in *ob/ob* mouse model. *Life Sci.* 270:118966(2021).
- [2]. Zhang, F., Chen, Z., Wu, D., et al. Recombinant human GLP-1 beinaaglutide regulates lipid metabolism of adipose tissues in diet-induced obese mice. *iScience* 24(12)103382(2021).

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