Web: www.taiclone.com
Tel: +886-2-2735-9682
Email: order@taiclone.com

Exendin-4

Catalog No: tcsc1174

Available Sizes

Size: 1mg

Size: 5mg

Size: 10mg

Size: 25mg

Specifications

CAS No:
141758-74-9

Formula:
$C_{184}H_{282}N_{50}O_{60}S$

Pathway:
GPCR/G Protein

Target:
Glucagon Receptor

Purity / Grade:
>98%

Solubility:
DMSO : ≥ 32 mg/mL (7.64 mM); H2O : 1.23 mg/mL (0.29 mM; Need ultrasonic and warming)

Alternative Names:
Exenatide

Observed Molecular Weight:
4186.57

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Product Description

Exendin-4, a 39 amino acid peptide, is a long-acting **glucagon-like** peptide-1 receptor agonist with an **IC_{50}** of 3.22 nM. Sequence: His-Gly-Glu-Gly-Thr-Phe-Thr-Ser-Asp-Leu-Ser-Lys-Gln-Met-Glu-Glu-Glu-Ala-Val-Arg-Leu-Phe-Ile-Glu-Trp-Leu-Lys-Asn-Gly-Gly-Pro-Ser-Ser-Gly-Ala-Pro-Pro-Pro-Ser-NH2.

IC50 & Target: IC50: 3.22 nM (glucagon-like peptide-1 receptor)[1]

In Vitro: In human umbilical vein endothelial cells, exendin-4 significantly increases NO production, endothelial NO synthase (eNOS) phosphorylation, and GTP cyclohydrolase 1 (GTPCH1) level in a dose-dependent manner[2]. Exendin-4 shows cytotoxic effects to MCF-7 breast cancer cells with IC_{50} of 5 μM at 48 hour[3].

In Vivo: Both low- and high-dose exendin-4 treatment in *ob/ob* mice improve serum ALT and reduce serum glucose, insulin levels and calculated HOMA scores compared with control. Exendin-4-treated *ob/ob* mice sustain a marked reduction in the net weight gain in the final 4 weeks of the study period[4]. Animals treated with exendin-4 have more pancreatic acinar inflammation, more pyknotic nuclei and weigh significantly less than control rats. Exendin-4 treatment is associated with lower insulin and leptin levels as well as lower HOMA values in rats[5]. Exenatide causes dose-dependent relaxation of rat thoracic aorta, which is evoked via the GLP-1 receptor and is mediated mainly by H_2S but also by NO and CO[6].