

Product Data Sheet

**Cat#** SP-100814-1

**Description:** Biotin - Exendin 4 (AA: Biotin-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-NH<sub>2</sub>) (MW: 4412.96)

**Size:** 0.5 mg

**Purity:** >95%

**Store:** Desiccated at -20oC.

Exedin-4 Recombinant is a glucagon like peptide-1 receptor agonist. The native hormone is produced in the gut of Gila monster *Heloderma suspectum* (a type of reptile found in the desert) that stimulates insulin production without causing threateningly low blood sugar, which can occur after using insulin and some anti-diabetes products. Recently, researchers used extracted saliva from gila monsters to create an unprecedented breakthrough in Diabetes Type 2 treatment. Unlike other products taken for type 2 diabetes, Exedin-4 has not been linked with weight gain and actually resulted in weight loss, according to the researchers. Exedin-4 enhances glucose-dependant insulin secretion, suppresses inappropriately elevated glucagon secretion and slows gastric emptying in vivo. It also promotes B-cell proliferation and neogenesis in vitro and in animal models. Exedin-4 stimulates an increase in acinar cAMP, without stimulating the release of amylase. Exedin-4 stimulates an increase in acinar cAMP, without stimulating the release of amylase. Although exendin-4 was originally found to stimulate amylase secretion from pancreatic acinar cells, subsequent experiments demonstrated that exendin-4 was a potent agonist for the mammalian GLP-1 receptor, consistent with the ~53% amino acid identity that exendin-4 shares with GLP-1.

It has the following biological activity: 1. Regulates Glucose levels rapidly 2. Reduces Insulin resistance 3. Reduces Glucagon 4. Reduces HbA1c. 5. Stimulates beta cell growth which stimulates insulin production.

Exendin-4, previously known as the investigational agent AC2993, or currently as exenatide, (Byetta) was assessed as a treatment for Type 2 diabetes in multiple clinical trials (originally in the AMIGO studies). Exenatide is a synthetic version of exendin-4, displays biological properties similar to human glucagon-like peptide-1 (GLP-1), a regulator of glucose metabolism and insulin secretion. It approved in April 2005 for the treatment of diabetes mellitus type 2.

**Reference:** Perry et al (2002) J.Pharmacol.Exp.Ther. 302 881; S A Beak (1998) J Clin Invest., 101(6), 1334-1341

**Related items:**

Catalog#	Prod Description
PP-1250	Exenatide Acetate (Exendin-4)
RP-601	Recombinant (E.Coli) Exendin-4
SP-100297-5	Exendin 4 (1-8) (AA: His-Gly-Glu-Gly-Thr-Phe-Thr-Ser-NH <sub>2</sub> ) (MW: 833.86)
SP-100814-1	Biotin - Exendin 4 (MW: 4412.96)
SP-101099-1	Exendin 4 (3-39) (MW: 3991.5)
SP-52143-1	Exendin-4 MW: 4186.03]
SP-55285-1	Exendin (9-39) [MW: 3369.83]
SP-87196-1	Exendin 4 (3-39) (MW: 3992.47)

SP-100814-1- Exedin

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